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A NEW

TREATISE

ON THE

DISEASES

OF

HORSES:

Wherein what is neceſſary to the

KNOWLEDGE of a HORSE,

The Cure of his DISEASES, and other Matters relating to that Subject, are fully diſcuſſed, in a plain and eaſy Manner, from many Years Practice and Experience. With the cheapeſt and moſt efficacious Remedies.

BY

WILLIAM GIBSON, Surgeon,
In Duke-Street, Groſvenor-Square.

Illuſtrated with Thirty-two COPPER-PLATES.

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PART III.

Of the DISEASES of HORSES, and their Cure.

CHAP. V.

Of HORSES Colds, and other Diſeaſes of the Breaſt and glandulous parts about the Head and Throat.

I NEED not be very critical in deſcribing the nature of a cold, ſeeing every one has more or leſs ſome acquaintance with it, and the uſual ſymptoms that attend it. In colds perſpiration is obſtructed, whereby the pores and common outlets are ſo far ſhut up, that the perſpirable matter not having a free paſſage, cauſes a redundancy that commonly affects the Head, and the glandulous parts about the Neck and Throat, as alſo the Lungs and other principal Viſcera; and in very ſevere colds, or where the blood has been previouſly bad and vitiated, the whole body will be ſenſibly impreſſed by it, as may be obſerved from the ſtiffneſs and feebleneſs of the limbs, and inaptitude to all motion, that frequently happens in ſuch caſes; and indeed there are few diſeaſes incident to the ani-

mal body, which may not more or leſs derive their origin from a cold.

It would be endleſs to enumerate the many and various cauſes of colds, and I have already taken notice of ſome of them, eſpecially where I have treated of malignant and putrid fevers, which are often the effect of colds of the worſt ſort; however, I ſhall repeat ſome of them again, that thoſe who keep many Horſes of value may be the better enabled to prevent their catching cold, as well as to cure them in proper time, before their colds degenerate into dangerous and fatal diſtempers.

The cauſes of Horſes Colds.

The moſt uſual cauſes of colds are riding Horſes till they are hot, and ſuffering them to ſtand in that condition where the air is cold and penetrating. Another very uſual cauſe of colds is, removing a Horſe out of a hot ſtable to ſtand in a cold one; and a cold taken this way will always be more violent, where a Horſe has been high fed and cloathed: and this is the reaſon why many Horſes catch very ſevere colds after they come out of the dealers hands. New-built ſtables are alſo dangerous before they have been well aired and ſeaſoned, and even old ſtables, when they have ſtood long empty and grown damp, are dangerous to tender delicate Horſes, that have been well kept. Many Horſes catch ſevere colds, attended with fevers and pleuretick diſorders, by leading them through deep ponds, while they are hot, and oftentimes by not carefully rubbing them down and drying off the ſweat when they come off journeys; riding late in the night air in cold damp weather,

ther, expoſes ſome Horſes to catch cold, that have not been accuſtomed to travel or work in the night. And oftentimes colds are owing to ſome particular temperament in the air, and ſo become epidemical colds, and may proceed from many other accidents, which would be too tedious here to relate.

The ſigns are a cough, heavineſs and dulneſs, which are more or leſs according as the cold happens to be more or leſs ſevere; ſometimes the eyes moiſt and watery, ſwelling of the Kernels about the Ears and under the Jaws, a gleeting at the Noſe; and when a cold happens to be violent, a Horſe will be feveriſh and off his ſtomach, will work at his Flanks, and loath hot meat, and refuſe his water. When theſe laſt ſymptoms appear, and the Eyes are very moiſt, and the Mouth ſlimy, the Ears and Feet cold, with an inward ſoreneſs, there is danger of a fever, and ſuch are generally of the malignant kind; but when a Horſe coughs ſtrong, eats ſcalded bran, and drinks warm water, it is a good ſign; or if a Horſe looks ſprightly and pricks up his Ears, and moves briſkly in his ſtall, though he loſe his appetite in ſome degree, there will be no great danger. It is alſo a good ſign when he dungs and ſtales freely, and without pain; when his coat does not ſtare, when his ſkin feels kindly, and his mouth ſomewhat moiſt and not clammy; but when it is hot, dry and parched, there is danger of a fever, eſpecially if along with theſe ſymptoms, he happens to be tucked up in his belly. The ſigns.

Young Horſes more ſubject to Colds than others.

Young Horſes are more ſubject to colds than thoſe that are full aged or old; for the blood of young animals is more balſamick, and of a more coheſive and glutinous conſiſtence than afterwards, which, as has been obſerved, is neceſſary when they are growing; tho' this texture of the blood expoſes them more to colds and other diſorders. And ſome young Horſes are ſubject to a cough and a ſlight fever when they are breeding their Teeth, but eſpecially before they cut their Tuſhes, as I have often obſerved, to which the Lampaſs often gives relief; and if the ſtrangles happen at this time, the cure will for the moſt part be ſudden and perfect. Sometimes young Horſes cough pretty much in the beginning of the ſummer, when they are troubled with worms and botts, but whatever deſtroys the vermin cures the cough, or when the worms go off with the ſeaſon, the cough alſo ceaſes.

When a Horſe has got a cold with a cough, ſnorts after it, and is not, or but little off his ſtomach, there will be no great need for medicines, but only to bleed him, keep him warm, and to give him ſome feeds of ſcalded bran; but if he feels hot, and refuſes his meat, it will be neceſſary to bleed plentifully in the firſt place, and afterwards the following drink may be adminiſtred, which I have found efficacious in all common colds, even when Horſes have been feveriſh, as they often are in the beginning.

The cure. Take Hyſop, Colts-foot, Pennyroyal, and Horehound, of each a handful; ſix cloves of

of freſh Garlick, peeled and cut ſmall; Linſeed, and freſh Aniſeeds, of each an ounce; Liquorice, half an ounce; Saffron, one dram; infuſe in two quarts of boiling water, cloſe covered: warm a quart of this infuſion, and diſſolve in it four ounces of Honey, to be given faſting; letting the Horſe ſtand two hours after it, before he has meat or water.

For his diet, let him have the ſweeteſt and beſt hay, ſcalded bran, and his water warmed.

There are many forms of drinks for Horſes colds, made of pectoral and cooling herbs, as Scabious, Rochet, Agrimony; and the carminative ſeeds, as the Aniſe, Coriander, Cumin, and moſt of the ingredients in the common Horſe-balls, given in wine or beer, which in ſimple colds often do ſervice. Others diſſolve one of the common cordial balls, and make a drink immediately, with a pint of warm ale or beer, which is the uſual method of moſt of the practitioners I have known. But this that I have preſcribed, not only conſiſts of pectoral and balſamick ingredients, but alſo thoſe that are attenuating and deterſive, which things are the moſt efficacious in Horſes colds, and, as I have often obſerved, bring them the ſooneſt to their ſtomachs.

A drink for a cold may be eaſily procured, almoſt in any place, only of two or three ounces of freſh aniſeeds, and a dram of ſaffron infuſed in hot water, and when the infuſion has

ſtood till it is of a right warmth, to diſſolve in it a ſufficient quantity of honey, with two large ſpoonfuls of oil; a little white wine may alſo be added. This, with good nurſing, will anſwer in moſt ſudden colds, where there has been no previous diſorder, and may be repeated as often as needful. The aniſeeds are cordial and pectoral, and ſeem to agree the beſt with Horſes of all other things of that kind, and are one of the principal ingredients in the common Horſe-balls now in uſe; which are made in the following manner, as they ſtand in *Markham*'s book, who aſcribes the invention of them to himſelf, though they are of a much older date, with ſome ſmall difference.

The common Horſe Balls.

Take Aniſeeds, Cuminſeeds, Fenugreek, Carthumus ſeeds, Elicampane-root, Flower of Brimſtone, and brown Sugar Candy, of each two ounces, beaten and ſearſed very fine. Then take an ounce of the Juice of Liquorice, and diſſolve it in half a pint of white wine. Then take three ounces of Syrop of Coltsfoot, Sallad Oil, and Honey, of each half a pint; let theſe be mixed with the former, and make them into a paſte, with a ſufficient quantity of Wheat Flower.

Thoſe are mended as they ſtand in *Quincy*'s Diſpenſatory, under the title of *Paſta Hippiatra*, as follows:

Take Powder of Fenugreek, Aniſeeds, Cuminſeeds, Carthumus, Elicampane, Coltsfoot,

foot, Flower of Brimſtone, of each three ounces; Juice of Liquorice, one ounce; Oil of Olives and Honey, of each eight ounces; *Genoa* Treacle, twelve ounces; Oil of Anniſeed, one ounce; mix all together, and with a pound and a half of Wheat Meal, or as much as is ſufficient, make it into a paſte, which roll into balls, about as big as a common waſh-ball.

In theſe there are three ounces of each of the principal ingredients, whereas in *Markham*'s, there are only two ounces. Theſe have alſo an addition of an ounce of Oil of Anniſeeds, which is a very great emendation, and indeed, has been in uſe above theſe forty years paſt, which is not in *Markham*'s; as alſo three ounces of dry'd Coltsfoot, in powder, inſtead of the ſyrup. Yet I would adviſe any one who makes theſe balls, to diſſolve the Juice of Liquorice in white wine, as *Markham* directs, which not only makes them more pleaſant and cordial, but helps them to keep the longer, and if half an ounce of Saffron be added, they will be much the better for it. The price of theſe balls have been much run down by grooms and farriers, who generally buy them of the druggiſts for a ſmaller price than they themſelves can make them, and therefore are for the moſt part compounded of bad ingredients. The ingredients ſhould all be new and freſh, otherwiſe they are good for little, being moſt of them the ſeeds of aromatick vegetables, which ſoon ſpoil if they are not kept very dry. Thoſe who make them for

ſale, often leave out the Syrup of Coltsfoot, and put in ſome old fretted ſyrup, or the ſame quantity of common Treacle, inſtead of the Syrup of Coltsfoot, which is in *Markham*'s receipt, tho' the Coltsfoot in ſubſtance is much better; only it requires a great deal of care to dry it well in the ſhade, and after that a good deal of pounding to make it paſs the ſieve. They are no leſs apt to leave out the Carthumus ſeeds, which are alſo hard to pound, and their tough ſhells make the balls not look ſo fine and ſmooth to the eye when broke; but this is a manifeſt loſs, the Carthumus being one of the beſt ingredients, for they help to free the Stomach and Guts from ſlime and naſtineſs, and by their deterſive quality open and promote the glandular diſcharges. Theſe balls, when faithfully made, are of general uſe in diſtempers of the Stomach, Lungs, Liver, and other Viſcera, as well as in colds; and tho' they cannot be truſted alone in many diſeaſes, yet they will do hurt in none, and may be often made uſe of as a common vehicle, to mix with things of greater efficacy, in caſes that require a more immediate relief than they can give.

In recent new colds they are often ſerviceable, and I have known many Horſes cured of ſuch colds without any other remedy. The Sulphur and Carthumus ſeeds make them proper where young Horſes are troubled with worms, attended with a cough, and if half an ounce of Æthiops Mineral be worked into a ball, with the help of a little Honey or Treacle, and repeated every morning, for ſeveral days, with warm water

water and maſhes of bran or malt, they will generally anſwer the end propoſed by them; eſpecially in caſe of worms, if the following drink be given after each ball.

Take Savin, one handful; Gentian-root, cut into ſlices, and Coroline, of each half an ounce; Liquorice, two drams; boil in three quarts of water to a quart, which is ſufficient for one drink, and may be repeated ſo long as the balls are adminiſtered.

The cough that attends the cutting of the Teeth is generally very ſtrong, and ſometimes obſtinate, and ſeldom goes off intirely until the Teeth are grown, tho' ſome Horſes breed their Teeth without any ſuch diſorder. If the eyes are affected in breeding the Teeth, and the cough obſtinate, bleeding ought to be repeated. If the Lampaſs grow at the ſame time, and riſe higher than the Teeth, the Horſe will ſlabber and mangle his hay, but the ſafeſt way is not to meddle with them, either by inciſion or burning, as is commonly practiſed, becauſe that is often a great prejudice to the eyes; neither is it proper to uſe mouth waters, or any thing that may repel and ſtop the diſcharge that the Lampaſs cauſes from the mouth, but rather to promote it with ſcalded bran and warm gruel, until the ſwelling abates, which will happen as ſoon as the ſoreneſs of the Gums goes off, and this ſeldom continues above four or five days, or a week at fartheſt. If the eyes are watry, and look thick, with a yellowiſh caſt, the Horſe ought to be treated with the ſame things I have

have preſcribed for the cure of the Yellows; for this is a ſymptom that often proves the fore-runner of blindneſs, for which the reader may alſo conſult what I have written concerning the diſeaſes of the eyes, where theſe things are more particularly handled; and if the ſymptoms of a malignant fever appear, the Horſe muſt be treated accordingly.

I need not mention the great uſe of exerciſe in carrying off the remains of colds, as well as fevers and other diſtempers. However, a Horſe in this reſpect ſhould be carefully managed. For if he be much oppreſſed with his cold, as ſometimes happens in the beginning, even where there are no bad ſymptoms, exerciſe may prove hurtful, if not dangerous, till that oppreſſion is removed, by bleeding and other proper evacuations; and even then he ought not to be urged beyond his natural diſpoſition and ability, but as ſoon as he comes to feed heartily, and ſnorts after coughing, he may be exerciſed every day for an hour, or longer, in any convenient place, which will haſten his recovery; and exerciſe always is a great help to thoſe that run at the noſe, as it greatly furthers that diſcharge, and alſo helps the working of rowels, which are ſometimes neceſſary for Horſes that have colds, and are at the ſame time loaded with fleſh; for in ſuch caſes, repeated bleedings, and all other evacuations, are of great uſe.

Of the STRANGLES and IVES.

THE *French* and other foreign writers have compared the Strangles in Horſes to the ſmall pox in men; and as the ſmall pox is more incident to children than to grown perſons, ſo it has been obſerved by theſe writers, that the ſtrangles chiefly affects colts and young Horſes, when they catch inveterate colds; which is very true, for Horſes are ſeldom ſubject to the ſtrangles after ſix years old, tho' I have known ſome Horſes have this diſtemper at ſeven and eight, and ſometimes at nine or ten, tho' theſe inſtances are not very common. The Strangles is alſo ſaid to reſemble the ſmall pox in this, that it never ſeizes Horſes oftner than once; whereas many other diſtempers proceeding from common cauſes and accidents, will return as often as there are the proper cauſes to produce them. But however that be, it is certain the Strangles is a critical ſwelling, which when it breaks and impoſtumates, diſcharges ſomewhat obnoxious to the conſtitutions of young Horſes, by which they are uſually rendered more healthful than they were before.

The Strangles compared by foreigners to the ſmall pox in men.

The Strangles begins with a ſwelling between the Jaw-bones, ſometimes pretty low among the muſcles of the tongue, attended with great heat, pain and inflammation, ſometimes to ſuch a degree, that a Horſe is ſcarce able to ſwallow till the tumour ripens and turns to matter.

The Strangles deſcribed.

Many

The cauſe. Many colts have the Strangles at graſs, which come to maturity and break, making a very plentiful diſcharge, without any other help beſides what nature affords; tho' I have known in ſome a very great malignity, with a purulent running at the Noſe, which is often dangerous. And thoſe that eſcape the Strangles at graſs, for the moſt part are ſeized when they are firſt taken up and put to buſineſs; and we often obſerve the change of diet, the alteration of air, and exerciſe, bring on the Strangles. Other cauſes may be, their catching cold, their ſhedding their Teeth, or whatever may induce pain, or bring a flux of humours at any critical time upon the Throat and Jaws.

The ſigns and diagnoſticks. When the Strangles are coming upon a Horſe, he feels unuſually hot, and ſometimes very feveriſh, with a painful cough; ſome go quite off their ſtomachs, others are only dainty, or eat and drink with pain in chewing and ſwallowing. When the ſwelling begins on the inſide of the Jaw-Bone, it is much longer in coming to maturity than when it begins more towards the middle. When the ſkin is tight and much ſtretched over the ſwelling, and that feels ſtarky, dry, and hot, the ſwelling will in that caſe be large before it breaks and make a plentiful diſcharge. When the ſwelling of the Strangles riſes between the Jaw-Bones, under the middle of the tongue, it is always the moſt favourable; but if it riſes upwards among the Glands, and is divided in ſeveral little tumours, it is not ſo kindly, but is apt to break in ſeveral places and at different times before it ſinks, which renders

it

it more tedious and troubleſome than when it breaks and diſcharges all at once. When the Strangles begin directly in the upper part of the Throat, towards the head of the Windpipe and Gullet, it hinders a Horſe ſometimes from ſwallowing for ſeveral days, until the tumour grows full and large outwardly. This degree of the Strangles is not altogether without danger of a ſuffocation. The preſſure made upon the head of the Windpipe, makes the Horſes Eyes look fixed, as if he was convulſed, with his Noſe turned outwards, and his Noſtrils open for want of breath, which ſymptom continues till the tumour grows ripe, and then it breaks and runs off. But the worſt and moſt dangerous kind of Strangles, is when at the ſame time a Horſe is ſwelled under the Jaws, he runs alſo at the Noſe, which is either the effect of ſome degree of malignity in the blood, or is cauſed by ill management; and this is what ſome call the falſe or baſtard Strangles.

Symptoms dangerous in the Strangles.

This diſtemper ſeldom proves dangerous, unleſs people are too buſy, and make too great an apparatus in the cure, for doing much in this caſe, is worſe than doing too little, for the Strangles ſeldom needs any other help than to aſſiſt nature, which is eaſily done, by keeping the ſwelling always moiſt with ointment of Marſhmallows, this being the moſt proper of all other things, being compoſed of a mucilage of Marſhmallow Roots, Linſeed and Fenugreek Seeds, Neats-foot Oil, with Roſin, Turpentine, and Bees Wax. It is emollient, warm and ſuppurative, and therefore ſoon brings ſuch critical

The Cure.

tumors to maturity. This is what I always make uſe of in common caſes, and never fail of ſucceſs.

Poultices often hurtful in the Strangles.

Some uſe Poultices to ripen the Strangles; but beſides the trouble of applying them, and renewing them often, they frequently prove hurtful, by drawing too violently, and bringing too great a flux of humours upon the part. On the other hand, if the poultices are not kept cloſe, they are apt to ſtrike a damp and chillneſs into the part, which repels the humours, and drives them back again into the refluent Blood; and this often leaves a dry, hard, obſtinate cough, or indangers a Horſe's Eyes. Another error in the cure of the Strangles, is opening the tumor before it comes to maturity, which greatly defeats nature, for the matter not being ripened before the inciſion, breeds hard, callous ſwellings under the Throat, with a gleeting ulcer, and as nature ſtrives to get clear of her burden every way, there often follows a plentiful running at the Noſe, that without very great care, will end in a rot, of which I have ſeen ſeveral inſtances. Therefore if the Strangles prove kindly, and without uncommon ſymptoms, there is no need of any other application, beſides keeping the part continually moiſt with the above-mentioned ointments, till the tumor breaks and diſcharges itſelf, which for the moſt part happens in about five or ſix days; ſome open the tumors, or widen the orifice with tents; but this is altogether unneceſſary, and often injurious, for nature does the buſineſs here effectually, unleſs the matter has been repelled by

Other Errors in the Cure of the Strangles.

by ſome improper application, or other ill management.

If the Strangles begin with great pain and inflammation, as ſometimes happens; if the Horſe's Eyes are fix'd, and look convulſed, and his Neck about the Onſet much ſwoln, and his Jaws ſtiff, with his Noſe turn'd outwards; it is then neceſſary to take away a moderate quantity of blood, to anoint the part well, and cover it firſt with a thin woollen cloth, and then the whole Head and Neck with a warm hood, anointing the ſwelling as often as it turns dry, until it comes to maturity and breaks. Where the inflammation is ſo great, as in this caſe, it commonly burns, and rots the ſkin that incloſes the matter, by which means it falls off in pieces, like an eſchar made by a cauſtick, and lays all open between the interſtices of the Muſcles and around the contiguous Glands; but here alſo nature effectuates a cure, without any other help, beſides what has been already recommended, for the waſte is ſoon repaired by a new growth, covered with Skin and Hair, as perfect as at firſt. Sometimes the Strangles break inwardly, and the matter is diſcharged chiefly by the Mouth; and when it is ſo, the Horſe's mouth may be waſhed once or twice a day, with equal parts of white wine vinegar, and ſpirit of wine, with a ſpoonful of honey to each pint; this with warm ſoft diet, will perfect the cure without any other help, and the ſwelling on the outſide will ſoon wear off.

In ſome caſes where there is little ſwelling and inflammation, the Horſe will eat and drink without

without pain; and tho' there be a collection of matter, yet when it is ſmall, it ſometimes continues a pretty while without breaking, as I have frequently obſerved. Thoſe who have not patience to wait nature's time, may forward the diſcharge with a burning torch, in the ſame manner as in ſinging off the Hair from thoſe Horſes that are rough and hairy about the Jaws. The fire in this caſe criſps the Skin, and cauſes the Fibres to divide eaſily, and break ſo as to make way for the matter, or the tumor may be opened with the point of a ſmall hot iron, which is better and ſafer, than by inciſion with a cold ſharp inſtrument; taking care withal not to go too deep, ſo as to wound the ſound parts, which miſcarriages often do much harm, by inflaming the parts about the Larynx, &c.

Proper Diet in the Strangles.

In all ſtates of this diſtemper, the Horſe ſhould have ſcalded bran, and plenty of water-gruel to dilute his blood, and fit the matter the ſooner for a diſcharge. If the Strangles be attended with the ſymptoms of a malignant fever, which ſometimes happens, give him the following infuſion.

Take Rue Water, Germander, and Penny-Royal, of each a handful; Chamomile Flowers, half a handful; Bay Berries, half an ounce; Saffron, one dram; infuſe in a quart of boiling water all night, and give it in the morning, with a ſpoonful or two of Honey.

This

This may be repeated once or twice, till the tumor is ripe; after which there will be no farther occaſion for internals.

The ſame method may be followed to advantage, where there is a running at the Noſe along with the Strangles, which may be cauſed, either by a more than ordinary malignity in the diſtemper, or by over-heating a Horſe's Blood, when the malady has been but juſt begun and coming upon him. This ſymptom often proves dangerous, as I have already taken notice; yet if the running at the Noſe goes off, as the tumor under the Jaws ripens, the Horſe with good management will do well. But if the tumor be dead, lifeleſs, and cold, without pain and inflammation, and can by no means be brought to maturity, the running at the Noſe will then increaſe, and weaken the Horſe exceedingly, and therefore all imaginable pains muſt be taken to ripen the ſwelling, either by the method already laid down, *viz.* burning with a lighted torch, or by cauſtick. But if, notwithſtanding a diſcharge be made, the running at the Noſe ſtill continues, the iſſue will then be doubtful; and in this caſe, the likelieſt method to prevent a waſte and decay, would be by giving an ounce of Jeſuits Bark in powder, with about a pint of red wine, and to repeat it three or four times, or oftner, if the Horſe be worth the expence. I have found decoctions of Guiacum, ſuch as are afterwards preſcrib'd in the cure of the Farcy, dry up the ſnottineſs that comes in this manner, when taken in time; for by continuance, the Glands grow exceedingly relaxed and ſpun-

How the Diſtemper is to be managed when dangerous Symptoms ariſe.

gy, or on the other extreme, hard and ſchirrous: In both which caſes, the diſtemper becomes habitual, the inſide of the Noſe ulcerous, and in many reſpects reſembling the Glanders.

I have frequently obſerved great benefit from the uſe of Guiacum, where the glandular diſcharges have been too liberal, and even in drying up ulcers of all kinds in Horſes. I had a fine Horſe committed to my care about ten years ago, that was ſent a journey in wet weather, the day after the Strangles broke. He run a gleet of water from under his Jaws, and a matter of the ſame conſiſtence at his Noſe, which had continued for ſeveral months, by which he was become quite extenuated, and exceeding weak, for the running under his Jaws was ſo profuſe, that the litter was continually wet under him. This Horſe was ſoon cur'd, and reſtor'd to perfect health and vigor, by ſtrong decoctions of Guiacum. But I believe ſuch caſes as this ſeldom happen, and very few Horſes would have ſtood it ſo long, but muſt in all likelihood have gone to the dogs, for he was naturally a Horſe of great ſpirit and vigor, which no doubt contributed very much to his recovery.

A very extraordinary Caſe.

I have ſeen ſeveral young Horſes, that have had little, ſmall looſe kernels under their Jaws, and have run at their Noſe a white, thick, mucilaginous matter, ſometimes more, ſometimes leſs, for a year or two, and ſometimes altogether free. In whichcaſe, the Guiacum decoctions made in the following manner are of great benefit.

Take

Take Guiacum raſp'd, an ounce; a handful of Raiſins of the Sun, and about eight or ten large Figs; half an ounce of Florentine Orrice Root, Chio Turpentine, two ounces; with a pound of old ruſty iron ty'd in a canvas bag, boil in three quarts of water to two quarts, give a pint every morning, or a pint and a half, or a quart in extreme caſes for a fortnight, and let the Horſe be kept in conſtant exerciſe in the free open air, which is a great help in all ſuch habits.

This is more commonly the effects of a weakly conſtitution, than of any real diſtemper, and may perhaps come, where the efforts of nature have been too weak to produce the Strangles in a ſalutary manner. The relax'd kernels are generally perceivable, when a Horſe is about four years old, and he begins to run at the Noſe when he is coming five. Some of theſe Horſes prove meer Jades, and thoſe that recover ſtrength, are ſeldom fit for much buſineſs, till they are ſeven or eight years old; and it is probable, many of thoſe that die young with inward impoſtumations, are of this kind.

Of the IVES.

THE IVES or VIVES, as ſome call this diſtemper, has a near affinity to the Strangles. It is a ſwelling, and perhaps a ſlight inflammation of the Glands or Kernels under the Ears of a Horſe. They ſeldom come to impoſtumations

The Ives deſcribed, and how diſtinguiſhed from the Strangles.

as the Strangles do, but perſpire and wear off gradually, and the pain and ſoreneſs often abates as in men, when the almonds of their ears are ſaid to be down, only by keeping the part warm and covered from the external cold. Sometimes the ſwelling of theſe Kernels continues for a week or a fortnight, and at laſt ſpreads downwards under the throat, and terminates in the Strangles, and then needs only to be treated as ſuch.

The cauſe of the Ives.

The Ives, like the Strangles, is moſt incident to young Horſes, and uſually proceeds from the ſame cauſes, *viz.* their catching cold, their being over-heated, or any ways over-worked about the time of ſhedding their Teeth, &c. A Horſe that has the Ives rather coughs more and oftner than one that has only the Strangles, and has a no leſs difficulty in his ſwallow, occaſioned by the pain and tenderneſs of the Kernels, which in ſome is ſo ſenſible, that they can ſcarce indure to be touched about the Neck and Throat; and in ſome the Eyes look alſo ſwoln, tender, and watery; a fever, for the moſt part, alſo attends the Ives, which is often of the malignant kind. And I have ſeen Horſes in this condition extremely ſick, and for a ſhort time, refuſe all manner of food: when this diſorder happens in ſhedding their Teeth, then their gums will appear rediſh and tumify'd all round their ſockets. The Lampaſs generally riſe at the ſame time, to a great degree, and reach beyond the edges of the upper Teeth; all which concomitant ſymptoms excite pain, and make a Horſe very uneaſy. When theſe Glands, *viz.*

A fever attends the Ives.

the

the Ives, ſwell on a Horſe that is old or full-aged, it is a ſign of great malignity, and often of inward decay, which, for the moſt part, proves dangerous, and therefore ought to be treated as other malignant diſtempers; but the Ives in young Horſes requires a more ſimple treatment.

The cure is, in the firſt place, to anoint with marſhmallows, and to cover the Horſe's Head and Neck with warm cloathing. At the ſame time bleed in proportion to the Horſe's ſtrength, and repeat the bleeding in a day or two in a ſmaller quantity, if the fever continue violent; but if the Kernels inflame and ſwell, all imaginable pains ought to be taken to bring them to ſuppuration by frequent embrocations, and keeping warm: when the ſwelling drops downwards, under the Jaws, then the caſe admits of no difficulty, but muſt be treated as the Strangles. The Cure.

As to Internals, the ſame method is to be followed as in colds, and the ſame opening diet, till the Horſe recovers his appetite; drinking water-gruel plentifully, is a great help in all ſuch caſes, with ſcalded bran; in his bran may be given ſulphur and honey with good effect, eſpecially if an ounce of ſal prunellæ be mixed with it once a day; and as ſoon as he gets fleſh, and has recovered his ſtrength, it will be proper to give him two or three mild purges. Purging is alſo ſometimes neceſſary after the Strangles, eſpecially in ſuch caſes where nature has been ſtriving different ways, to eaſe herſelf of her burden: and that the Horſe looks ſurfeited or hide-bound; though this ſeldom happens but where there has been ſome previous ill habit, The method of treating Ives, with regard to Internals.

ſome ill management, or a more than ordinary malignity in the diſtemper: for in moſt caſes, the Strangles are ſo kindly, that Horſes generally thrive better after they are over than before, and need no other phyſick to alter or purify their blood.

Of a PLEURISY and PERIPNEUMONY.

I HAVE not found a Pleuriſy or Peripneumony, ſcarce ſo much as mentioned by the writers on the ſubject of Farriery, and not in the leaſt underſtood by the generality of practitioners, though it will appear manifeſt from what I have here to offer, that theſe diſtempers are not uncommon among Horſes as well as among men.

A Pleuriſy and Peripneumony defined.

A Pleuriſy is an inflammation of the Pleura, *viz.* the Membrane that lines the inſide of the Cheſt, and when the intercoſtal muſcles are inflamed, it is ſaid to be external. The Pleuriſy generally ſeizes one ſide only, but the Peripneumony is an inflammation of the whole ſubſtance of the Lungs, and when that is violent, the Pleura is alſo for the moſt part inflamed.

The cauſe.

The cauſe of a Pleuriſy is often from hard riding, or hard work of any kind, when the blood is ſizy, eſpecially young Horſes that have been high fed, and have had but little exerciſe; ſuffering a Horſe to cool too ſoon when he has been heated with exerciſe; riding a Horſe deep in cold water when he is hot; expoſing him to ſtand long in a ſharp cold or damp air, and ſuch like. The cauſes of a Peripneumony are the ſame, only

only that in the latter there is generally a Plethora, or ſome previous diſorder in the Lungs, or ſome very inveterate cold.

The ſigns of a Pleuriſy and Peripneumony are alſo very much the ſame; only with this difference, that in a Pleuriſy the Horſe ſhews great reſtleſsneſs and uneaſineſs, ſhifts about from place to place; the fever, which at firſt is moderate, riſes ſuddenly to a very high degree; in the beginning he often ſtrives to lye down, but ſtarts up again immediately, and frequently turns his head towards the affected ſide; which has cauſed many to miſtake a pleuretick diſorder for the Gripes, this ſign being common to both, chiefly with this difference, that in the latter a Horſe frequently lies down and rolls: when the Gripes are violent, he will alſo have convulſive twitches, his Eyes turned up, and his Limbs ſtretched out as if he was dying, his Ears and Feet ſometimes exceſſively hot, and ſometimes as cold as ice. He falls into profuſe ſweats, and then into cold damps; ſtrives often to ſtale and dung, but with great pain and difficulty, which ſymptoms generally continue till he has relief. But in a Pleuriſy a Horſe's Ears and Feet are always burning hot, and his Mouth parched and dry; even ſometimes when he is near his end, his fever is continued and increaſing. And though in the beginning he makes many motions to lye down, yet afterwards, he reins back as far as his collar will permit, and makes not the leaſt offer to change his poſture, but ſtands panting with ſhort ſtops, and a

The ſigns of a Pleuriſy and Peripneumony not eaſily diſtinguiſhed in a Horſe.

Often miſtaſten by practitioners for the Gripes.

How to avoid that error.

disposition to cough, till he has relief or drops down.

The signs of a Peripneumony, wherein the distemper chiefly differs from a Pleurisy.

In a Peripneumony, there are several of the same symptoms as in a Pleurisy, only in the beginning he is less active, and never offers to lye down, nor during the whole time of his sickness. His fever is strong; and whereas in a Pleurisy, a Horse's mouth is generally parched and dry, in a Peripneumony, when a Horse's mouth is opened, a roapy slime will, for the most part, run out in great abundance, and gleets at his Nose, much in the same manner as has been described in a malignant fever, *viz.* a redish or yellowish gangred water, that sticks like glue to the inside of his Nostrils. In a Pleurisy, a Horse heaves and works violently at his Flanks, with great restlessness, and for the most part his Belly is tucked up; but in a Peripneumony he always shews fulness and the working of his Flanks regular, except after drinking, or when any thing is administred with a horn; or at any time when, through uneasiness, he goes to move his posture, then the heaving is stronger and more vehement than at other times; his Ears and Feet are, for the most part, always cold, and often falls into damp sweats, with other symptoms common to malignant distempers, only that they come more sudden and violent.

The cure of a Pleurisy and Peripneumony.

The cure both of a Pleurisy and Peripneumony is also the same, except where accidental symptoms may require some variation, for they often are conjoined and go together, and then it is not easy to distinguish the one from the other.

Bleeding,

Bleeding, and moſt other evacuations, are abſolutely neceſſary in all ſuch caſes. In the beginning a ſtrong Horſe may loſe three quarts of blood at once, and the next day, if the ſymptoms continue violent, two quarts more may be taken from him; but if he be old, or has had any previous weakneſs, the beſt way is to bleed often, but take away a leſs quantity at a time: in ſuch caſes a Horſe may loſe a quart in the morning, and the ſame quantity in the afternoon, which may be repeated the next day and longer, if the ſymptoms ſo require. I have known ſeveral Horſes where repeated bleeding has been the chief part of the cure. Rowels are alſo of ſervice in Pleuriſies and all inward inflammations; one on each ſide the Breaſt, one on the Belly, on the ſame ſide where he ſeems to complain, unleſs the motion of his Flanks be ſo great as to hinder its coming to digeſtion: in that caſe he may be rowelled on the inſide of both his Thighs; a bliſtering ointment alſo does great ſervice, rubbed all over his briſket upon the foremoſt ribs; it muſt be mild, and without any thing cauſtic or corroſive, beſides the Spaniſh flies, which will only make a revulſion, and not hinder his exerciſe, when that becomes neceſſary.

Rowels neceſſary in Pleuriſies, &c.

Internally all thoſe things are proper that have been recommended in inveterate colds; eſpecially where there is a ſuſpicion of inflamed Lungs, or other inward inflammations of the parts contained within the Cheſt, ſuch as frequently happen in malignant fevers, only without the Virginia ſnakeweed, contrayerva, and other heating

Proper Tonica's in Pleuretick diſorders.

ing cordials, which are the more to be omitted, becauſe it is difficult to promote in a Horſe a ſudden Diaphoreſis, or to bring him into a kindly ſweat, until his body has been prepared for it, which would require too much time in caſes of ſuch immediate danger; and therefore I have always found ſoft oily balſamicks and coolers do the moſt ſervice, ſuch as theſe following, *viz.*

Take Spermacœte one ounce, rub it in a mortar with the yolk of a new-laid egg; add to this half an ounce of Venice Turpentine, and incorporate them together; then take an ounce of Sal Prunellæ, or Salt Petre, in Powder-Sugar, of Lead, two drams; Saffron, half a dram; Chymical Oil of Anniſeeds, half a ſpoonful. Make the whole into one or two Balls, with a ſufficient quantity of Honey or ſyrup of Corn poppies, which is preferable to the Honey, and roll them in Liquorice powder.

Let theſe balls be given immediately with the following decoction.

Take Coltsfoot, Scabius, and Ground Ivy, of each a large handful; and Barley alſo a handful; the fatteſt and beſt Figs, cut in pieces, half a pound; Garlick two ounces; Horſe-radiſh and Aſſa-Fœtida, of each half an ounce; Saffron two drams. Boil in two quarts of water in a cloſe veſſel half an hour, pour off the decoction, and add to it

it a pint of Linſeed Oil, and a pound of Honey.

The balls are to be repeated twice a day or oftner, at firſt, with three or four hornfuls of this pectoral decoction; and in two or three days he will probably run at the Noſe, and begin to feed, which I have ſeen in ſeveral inſtances, eſpecially in ſuch caſes where the Pleuriſy and Peripneumony are joined together. And when this ſymptom appears, the balls and decoction may be continued till the running begins to abate, and that his appetite increaſes; after that they may ſtill be continued once a day for a week, only leaving out the ſugar of Lead.

If he happens to be coſtive, and hot inwardly, he ought to have a cooling Glyſter once a day, made of fat broth, two quarts, a pound of treacle, and the ſame quantity of common linſeed oil; one of theſe may be given every day, or oftner, if needful. Pot-liquor, wherein beef or mutton has been boiled, makes a very good decoction for a glyſter; the ſalt in the pot liquor, being but little in quantity, will have no other effect, than to make it a ſmall matter purgative. The following may alſo be uſed, which is a good emollient, and more in form. Glyſters neceſſary.

Take Mallows and Marſhmallows, of each a handful; the herb Mercury and Chamomile Flowers, the ſame quantity; Fennelſeeds bruiſed, two ounces; boil in two quarts of water to three pints, then pour off the Decoction, and add a pint of Linſeed

ſeed Oil, and a pound of common Moloſſus Treacle.

I have known emollient glyſters have an extraordinary effect in many ſuch complaints, by fetching away great quantities of dung, pent up in the Bowels, by viſcid, ſlimy, or greaſy matter, as it is generally termed; which, if not the primary and original cauſe of the diſtemper, has had a great ſhare in aggravating all the ſymptoms that have attended it. But where none of theſe ſymptoms are apparent, and that the Horſe continues hot, reſtleſs, and ſhort-breathed, and refuſes to feed, notwithſtanding the things above preſcribed have been regularly complied with, recourſe muſt be had to bleeding, but not in ſuch large quantities as at firſt; purging glyſters are alſo neceſſary, with the continuance of the balls and drinks, adding to the decoction for the drinks half an ounce of Caſtor, and the ſame quantity of Gum Tragacanth or Gum Arabick alſo diſſolved in it. For a purging glyſter,

Take leaves of Senna, and Roots of Marſhmallows, of each two ounces; ſweet Fennel ſeeds, bruiſed, and Bay Berries, of each an ounce. Boil in five pints of water to two quarts; clear off the decoction through a ſieve, and diſſolve in it four ounces of Lenitive electuary; two ounces of Syrup of Buckthorn, with half a pint of Linſeed Oil; to be given with all expedition lukewarm.

This

This will purge a Horſe without much pain or griping; whereas the common glyſters made with Barbadoes Aloes and Bitter Apple, are apt to fret and inflame the bowels; and inſtead of giving relief in theſe acute inflammatory diſtempers, uſually aggravate the ſymptoms and make them worſe.

If the Horſe grows cooler, and his pain more moderate, after the uſe of theſe things, you may repeat the glyſter the next day, unleſs he has purged much; in which caſe it would be better to intermit one day, and repeat it the day following; and if he comes to eat ſcalded bran, and pick his hay, you need only give him the firſt preſcribed pectoral drink every other day about four hornfuls, till he is fit to be walked abroad, and now and then one of the emollient glyſters. But after all, a Horſe ſeldom gets the better of pleuretick diſorders, unleſs he has relief in a few days, though I have known ſome hold it out longer in great pain and ſickneſs, and in the end do well, by attending carefully all the ſymptoms, and following the method I have here laid down.

Pleuretick diſorders apt to leave a taint on the Lungs, &c.

But as Pleuretick diſorders are more apt to leave ſome taint on the Lungs, than common colds or other inflammatory diſtempers, therefore a great deal of care muſt be taken upon his recovery, that his feeding be proper and in right quantity, and his exerciſe well-timed. A Horſe ſhould be kept to a light open diet for a fortnight or three weeks, *viz.* a quartern of bran ſcalded every day, and beſides that, two or there ſmall feeds of the cleaneſt and ſweeteſt oats, ſprinkled

How Horſes are to be managed in ſuch circumſtances.

ſprinkled with chamber-lye, and now and then in his bran a large ſpoonful of honey and ſulphur. Inſtead of the ſcalded bran, it will do well to give him ſometimes, for a change, about a quart of barley ſcalded, in a double infuſion of hot water, that it may be ſoftened, and the water may be given him to drink. His exerciſe ſhould be gradual, and increaſed as he gathers ſtrength, and always in an open free air, when the weather is favourable. If there be any remains of a cough, the air will be a great help to remove it with moderate exerciſe, and the remedies hereafter preſcribed for a dry cough may alſo be given at diſcretion. Purging is alſo proper after pleuretick diſorders, but then the purges ſhould be very gentle. The following is one of the mildeſt and beſt that can be uſed, which I can recommend as the moſt ſafe and efficacious in all ſuch caſes.

Purging neceſſary after Pleuriſies or Peripneumonies.

Take the fineſt Aloes, an ounce; Indian Rhubarb and Salt of Tartar, of each two drams; Saffron, one dram; one middle-ſized Nutmeg, firſt grated, and then beat up with the other ingredients. Make into a Ball, with a ſufficient quantity of Syrup of Buckthorn, and roll it in Liquorice-powder.

This may be given with the uſual precautions neceſſary in purging; it will work gently, without much ſickneſs or griping; in ſome I have known it work as briſkly as a ſtronger purge, where the Stomach and Bowels have been relaxed by indigeſtion, without any abate-

ment

ment of a Horſe's ſtrength; but, on the contrary, the Horſe has been more vigorous and lively than before, both during the operation and afterwards. This may be repeated three times at proper intervals, *viz.* once a week, and will help greatly to carry off the dregs and remains of the diſtemper.

The external Pleuriſy.

There is beſides the internal Pleuriſy here treated of, alſo an *External Pleuriſy*, *viz.* an inflammation of the intercoſtal muſcles, which compoſe the fleſhy parts between the ribs. It proceeds from the ſame cauſe as the internal. It may be known by a ſtiffneſs of the Body, Shoulders, and Fore-legs, ſometimes with a ſhort dry cough in the beginning, and a ſhrinking when a Horſe happens to be handled in thoſe parts; and perhaps when not well cured, proves the original of that diſtemper which horſemen and farriers call a Cheſt-founder; for when the inflammation is gone off, and the viſcidity of the blood and juices ſtill remains, it may readily enough bring on ſuch ſtiffneſs and inactivity in the muſcles as cannot eaſily be removed. But while it is only an external Pleuriſy, it is often carried off by bleeding, and pectoral drinks to promote the diſcharges from the Lungs, and afterwards purging, which is the likelieſt way to prevent its inflaming the Lungs and other internal parts, or making a ſettlement upon the Muſcles of the Breaſt and Shoulders, which is the moſt uſual conſequence; and therefore, where there is any ſuſpicion of an external Pleuriſy, outward applications are not always ſafe, unleſs when an outward ſwelling appears with

a tendency to break, in which caſe the ſwelling and the parts about it may be anointed with Ointment of Marſhmallows, to haſten its ſuppuration. I have frequently ſeen theſe outward inflammations on the Fore-ribs come to a favourable iſſue by falling downwards, and forming abſceſſes ſometimes on the inſide of the Fore-Leg, a little above the Knee, between the interſtices of the Muſcles, and ſometimes, which is more troubleſome, on the inſide, near the Onſet of the Shoulder; but never knew any evil accident happen, but when repellers were indiſcreetly uſed. On the contrary, a critical diſcharge from thoſe parts promotes health and prevents lameneſs.

There is yet another diſtemper which comes under the ſame claſs, which in the human body is called a *Paraphrinitis*, being an inflammation of the lower part of the *Mediaſtinum*, or Membrane that ſeparates the two lobes of the Lungs, and often an inflammation of the Midriff, and takes it name from Φρὴν, which ſignifies the mind, the ancients giving that name to the Diaphragm or Midriff, becauſe an inflammation of the Midriff was uſually attended with delirium and convulſions, which ſymptoms are owing to the infinite number of branches of the Phrenick Nerves, that are diſplayed all over it, and are neceſſary for its continual motion. Horſes are frequently ſubject to inflammations of the Midriff (or Skirt, as it is called by the vulgar) which however are not to be diſtinguiſhed in them from a Pleuriſy or Peripneumony, and may be treated in the ſame manner, only in this, that

that when the Midriff is greatly inflamed, a Horſe will ſometimes be jaw-ſet, and his Mouth ſo much ſhut up, that nothing either of phyſick or ſuſtenance can be got into it; of which I ſaw an inſtance lately, in a Horſe belonging to a perſon of the firſt rank, where both the Midriff, Lungs and *Mediaſtinum* were inflamed to a very great degree. The Lungs on their underſide were quite broke and mortified, and the lower part of the *Mediaſtinum*, and the whole ſubſtance of the Midriff were black, its tendinous parts green, with livid ſpots all over the Guts; but the reader may conſult what has been ſaid concerning convulſions, where this matter is more fully handled.

By examining the carcaſes of dead Horſes, I have obſerved them to be ſubject to all the different kinds of a Pleuriſy and Peripneumony. I have ſeen matter found under the Pleura, on one ſide, makes it way thro' that Membrane in great abundance into the cavity of the cheſt, in colour and conſiſtence reſembling the grounds of beer. In Horſes that have died of a Peripneumony, and have not been ſufficiently bled in the beginning, I have ſeen the whole ſubſtance of the Lungs extremely black and full of gangrened water, and great quantities of Blood flow out of the aſcending and deſcending trunks of the large blood-veſſels when cut, and in others ſeveral apoſthems and abſceſſes of different ſize, formed both towards the ſurface and deep in the ſubſtance of the Lungs; but have never obſerved the Lungs in a Horſe adhering to the Pleura, as is frequent in Men, tho' I have

ſeen many hydatical tumors or bliſters, which, when broke, generally gives riſe to that coallition; but when Horſes receive ſuch injuries in their Lungs as to raiſe bliſters upon them, they will be apt either to prove mortal, or if they happen to be but ſmall, the buſineſs required of Horſes, which muſt keep their Lungs in ſtrong action, and their horizontal poſition, will ſcarce admit their growing to any part of the pleura.

The Peripneumonia Notha not eaſily diſtinguiſhed in a Horſe from the true.

Tho' the *Peripneumonia Notha*, or baſtard Peripneumony, is alſo claſſed with theſe diſeaſes by the writers in phyſick, yet it is ſcarce to be diſtinguiſhed in a Horſe from a true Peripneumony, only in this, that there is great ſluggiſhneſs, without much pain or fever, the *Peripneumonia Notha* proceeding from a pituitous ſizy Blood, where the whole ſubſtance thereof is turned to a viſcid ſerum; in which reſpect it alſo approaches near to an aſthma. As in men this diſtemper happens chiefly to old worn-out or broken conſtitutions, which ſometimes carries them off very ſuddenly, ſo in old Horſes, that have alſo died ſuddenly, we may often obſerve, upon examining their Intrails, ſcarce any thing like Blood, but the blood-veſſels of their Lungs, where the Blood is generally moſt red and florid, filled and overcharged with a matter reſembling flower paſte, ſome parts of them flatulent and looſe, others ſhrunk and dried, or inclining to a Schirrus, which renders them incurable; and therefore it is unneceſſary to lay down any rules for that Purpoſe. See Aſthma.

Of a Cough and Asthma.

NOTHING has more perplexed the practitioners in Farriery, than a ſettled cough, and often cauſes no ſmall anxiety and uneaſineſs in the owners of ſome fine Horſes that are ſubject to it, while they conceived any hopes of a recovery; tho' Horſes that are inclined to a laſting continued Cough, without the other ſymptoms of a cold, frequently turn aſthmatick, broken-winded, or conſumptive. The Cauſes of a ſettled Cough.

The cauſe of a ſettled habitual Cough is ſometimes owing to colds, that have never been perfectly cured, ſometimes to a Pleuriſy, Peripneumony, or malignant Fevers, that have left a taint upon the Lungs, or other principal *Viſcera*, which produce Tubercles, and hard ſchirrous Subſtances, from whence an irregular circulation of the Blood in the Lungs, and the want of a free paſſage of the air, which, in the conſequence, muſt naturally produce a Cough, and an inordinate working of the Flanks, as often as a Horſe is put upon any briſk action. Sometimes a ſettled Cough proceeds from little eroſions in thoſe parts, ſometimes only from a ſuperfluity of tough flegm, and mucilaginous juices, ſtuffing the Glands and Branches of the Windpipe, and ſometimes from Polipus's, or fleſhy ſubſtances, ingendred in the large Blood-veſſels; all which hinder a free reſpiration, and excite Horſes to cough. Some Horſes are alſo ſubject to nervous Coughs, when the Nerves that are diſperſed on the Lungs and Midriff,

happen to be clogg'd or obſtructed; ſuch Horſes are apt to cough at uncertain times, and in ſuch a manner that ſhakes them violently while it laſts, but without any viſible diminution of health or ſtrength; and this may either be hereditary to ſome conſtitutions of Horſes, or may be induc'd by ill management of their food and exerciſe. But there is yet another cauſe of an obſtinate Cough, and which I imagine to be as frequent as any, and that is when the Lungs, or other principal *Viſcera* contained within the Cheſt, happen to be unuſually large; and tho' this may alſo be natural, yet I am perſuaded ſuch defects are often increas'd by foul feeding, and want of ſufficient exerciſe, or other error in diet, as haſty feeding a Horſe that is extremely poor and lean, to make him ſuddenly fat, by which an obſtinate incurable Cough, will readily be intail'd upon him, which proves to be the caſe of many Horſes that have been pamper'd for ſale, and what in the end expoſes them moſt of all other things to be broken-winded; as will be ſhewn more particularly in the following Section.

The ſigns and Diagnoſticks to be carefully obſerv'd.

Now when a Horſe has a ſettled Cough of any kind, the ſigns and diagnoſticks are carefully to be obſerved; that is, in what manner one kind of Cough is to be diſtinguiſhed from another, for without that, it is impoſſible to fall upon a likely method of cure, tho' it is almoſt needleſs in ſome caſes to attempt it, as will ſufficiently appear from what is further to be ſaid on this ſubject.

If a Horſe's cough is of a long ſtanding, attended with loſs of appetite, waſting of the fleſh, and weakneſs, it betokens a conſumption. If it proceeds from Tubercles, or hard ſchirrous ſubſtances, a Horſe, in this caſe, may feed as heartily as one that is ſound, while he lies ſtill in the ſtable, and look tolerably well to the eye, but whenever he is put upon any hard work, he will cough inceſſantly, and be in danger of a Pleuriſy, Peripneumony, or the Jaundice, if the Liver be affected, and will always ſhew a troubled Flank. When the Cough proceeds from flegm and mucilaginous matter, ſtuffing up the Veſſels of the Lungs, it may be diſtinguiſhed by theſe following ſigns; his Flanks have always a ſudden quick motion; he breathes thick, but not with his Noſtrils open as one in a fever, or a Horſe that is broken-winded; his cough is ſometimes dry and huſky, and ſometimes moiſt, before which, he wheeſes and rattles in his Throat, and ſometimes throws out of his Noſe or Mouth great gobs of white flegm, eſpecially after drinking, or when he begins or ends his exerciſe, which diſcharge commonly gives great relief. Some of theſe wheeſe and rattle to ſuch a degree, and are ſo thick-winded, that they can hardly be dragg'd along at firſt, till they have been ſome time in the free open air, after which they uſually mend their pace, and will go on, and do their buſineſs beyond all expectation. Theſe are properly aſthmatick caſes, and ought to be diſtinguiſhed in their ſymptoms, from that purſiveneſs and difficulty of breathing we ſee in ſome Horſes upon foul

How to diſtinguiſh the different kinds of a Cough.

feeding, or for want of due exerciſe, or in thoſe taken up from winter-graſs. For in this latter caſe, it often proceeds from a low, poor diet, in places extremely wet and cold, by which perſpiration is much impair'd, and with the want of warmth and food, a Horſe grows weak and faint. But theſe ſymptoms wear off gradually, when he comes into better keeping. And when a Horſe blows and pants with being over fed, and with want of exerciſe, it may eaſily be cured, if taken in time, with a contrary management; becauſe we ſuppoſe, no rooted or fixed diſtemper in either of theſe caſes, only in the one, the want of good Blood and Spirits; and in the other, a heavy ſluggiſh Blood, with a Plethora or fulneſs.

But it is quite otherwiſe in a true confirm'd Aſthma, that indeed may have its fits and paroxyſms relieved, tho' it is ſeldom totally removed, whether it proceed from any of the cauſes abovementioned, or from a diſorder of the Nerves; in this latter caſe, a Horſe eats his meat heartily, hunts, and goes thro' all his buſineſs with ſpirit and alacrity, appears well coated, and has all the other ſigns of perfect health, and yet he ſhall cough very often, and ſometimes inceſſantly, without throwing any thing up, except that the extremity of the Cough, ſometimes cauſes a little clear water to diſtil from his Noſe by the force it puts upon the Glands; and tho' his Cough is not directly periodical, but for the moſt part comes at uncertain times, yet ſome of theſe Horſes cough moſt in the morning, or after drinking, which will be more or leſs

leſs vehement upon the changes of the weather, or upon catching cold. This may properly be ſtil'd a Nervous Aſthma in a Horſe, as it chiefly affects the Nerves in the membranous parts of the Lungs and Midriff, *&c.* But when a Horſe coughs moſt after feeding, or after his water, it is often the forerunner of a broken wind.

I ſhall now proceed to the cure, wherein regard is to be had to the above deſcrib'd ſigns and diagnoſticks, for tho' all theſe diſtempers may take their riſe from the ſame original cauſe, ſuch as catching cold, or from ſome general defect, or exceſs of one kind or other, and muſt therefore have the ſame treatment as to univerſals, yet the natural conſtitutions of ſome Horſes, good or bad management, unforeſeen accidents, and the like, produce ſuch variations as require a different procedure, according as the conſtitution or ſymptoms happen to be different; and therefore, as in the firſt mentioned caſe, where the ſigns of a conſumption are manifeſt along with the Cough, it muſt be treated as ſuch. See CONSUMPTION.

But as in the ſecond caſe, where the Horſe retains his ſtrength notwithſtanding his Cough, is full of fleſh, feeds, but has a quick motion in his Flanks, and flags when he is put to hard work, if a Horſe be full ag'd, and theſe ſymptoms of ſome continuance, the caſe may be looked upon as doubtful, if not incurable; for there is reaſon to ſuſpect indurations, and hard ſchirroſities in the Lungs, or other internal parts; if theſe are ſeated in the Liver, his Eyes, and the inſide of his Mouth will often look yel-

low, eſpecially after hard work, or riding, his Urine will be dark, and high-colour'd, and his Dung of a light pale green; and if the malady is ſeated near the Gall Pipe, the Jaundice will probably follow; gentle and good uſage will avail moſt in all ſuch caſes.

The Cure. But if the Horſe be young, and falls into ſuch a habit after a cold, after long ſickneſs, or other accident, whereby it may be ſuſpected ſuch ſymptoms are coming upon him, one would make ſome trial to recover ſuch a Horſe, which may often meet with ſucceſs, if he be carefully managed, and proper medicines are regularly adminiſter'd; in order to this, I can recommend the following method. Firſt of all take a moderate quantity of Blood. The next day give him ſcalded bran, and at night the following Ball.

Take Diapente, an ounce; Calomel that has been often ſublim'd and well prepared, two drams; make into a Ball, with a ſufficient quantity of Honey.

Let the Ball be repeated the next night, and let his Water be warm, neither ſuffer him to go into the wet. He ſhould be cloath'd both with head-cloaths, and body-cloaths, and well litter'd. His hay ſweet and dry, and I ſhould prefer water-gruel to water, or elſe the water ſoften'd with bran. His food ſhould be ſcalded bran, with a ſpoonful of honey in each feed. The morning after the ſecond mercurial ball, give the following Purge, if the Horſe be of a pretty ſtrong conſtitution.

Take

Take fine Succotrine Aloes, ten drams; fresh Jallap in fine Powder, and Diaphoretick Antimony, of each two drams; Salt of Tartar, two drams; make it into a Ball with a sufficient quantity of Syrup of Buckthorn; and about sixty drops of Chymical Oil of Annisseeds.

This is to be administer'd in the morning, and the Horse to be managed with all the precautions usual in purging; once in five or six days the purge is to be repeated till he has taken three purges; and before each over night, one mercurial ball with Calomel, as above directed, taking all imaginable care that the Calomel be well prepared, and that the Horse do not catch cold. After each purge give the following drink, which is proper where mercurial medicines are given, to prevent any ill effects that may proceed from thence.

Take of the Shavings or Raspings of Guiacum Wood, half a pound; Raisins of the Sun, four ounces; Colts-foot, a large handful; slic'd Liquorice, half an ounce; boil in three quarts of Spring or River Water, to two quarts; pour off the decoction, and dissolve in it four ounces of Honey.

A proper diet drink, after mercurial medicines.

Give one half in the morning after the purge has done working, and the other the morning following.

If you find, after these things have been administer'd, the Horse grow better, and more able

to

to indure exerciſe, you may be encouraged to proceed further, in order to a more perfect recovery, by a conſtant uſe of milder mercurials, for which I can recommend the following balls, which by degrees will open thoſe obſtructions, that by their continuance cauſe indurations, and hard concretions in the Lungs.

Take Native Cinabar, or Cinabar of Antimony, half a pound; Gum Guiacum, four ounces; Myrrh and Gum Ammoniacum, of each two ounces; Liquorice Powder, three ounces; reduce the Cinabar into a fine Powder, rubbing it in a clean mortar by itſelf, till it is of a beautiful red colour, and that no gliſtning appears; the Myrrh, Gum Guiacum, and Ammoniacum, muſt be well pounded in a large Mortar, keeping the end of the Peſtle moiſten'd with Oil; and when theſe are thus pounded and incorporated, add the Cinabar and Liquorice Powder, and mix them well together with a ſufficient quantity of Honey, or Oxymel of Squils, and make into Balls the Bigneſs of a Pullet's Egg.

One of theſe to be given every morning, letting the Horſe ſtand without hay or water two hours before, and two hours after each ball.

Theſe balls may be continued two or three months, during which time the Horſe may be rid or work'd as uſual: He may alſo have his ordinary feeds of oats, giving him now and then a little

a little ſcalded bran, and in cold weather his water may juſt have the chill taken off. And this I have found the moſt likely way to cure all ſuch diſorders, before they have been deeply rooted; for the common pectorals avail but little in ſuch caſes, without ſuch powerful deobſtruents.

If the ſeat of the diſtemper be chiefly in the Liver, which may be known by the ſigns already deſcrib'd, *viz.* a yellowneſs of the Eyes, Mouth and Lips, the dung of a light colour, and the urine dark; a ſhort dry cough, with an inclination to drink often, a more than ordinary dulneſs and heavineſs, ſometimes rheums, with yellow clouds in the Eyes. Theſe ſymptoms may be eaſily removed, if taken in time, if the Horſe be young, by the medicines preſcrib'd for the Yellows and Jaundice, with the uſe of the Cinabar Balls; but all theſe caſes, when of long continuance, are generally incurable, from whatever cauſe they proceed, whether from previous colds, ſickneſs, inward hurts, or any other accident, but moſt of all, when they take their riſe from the natural conſtitution, which may diſpoſe ſome Horſes more than others to ſuch maladies; and indeed ſchirrous tumors, ſometimes turn cancerous, in whatever glandulous part of the Body they happen to be ſituated.

Horſes with ſuch infirmities, may hold out ſeveral years with little alteration, either for the better or the worſe, if they have not much to do, and are well uſed; but if they happen to be hard worked, or expoſed more than ordinary to the cold, they either fall into a fever, and die ſuddenly, by impoſtumations, or turn in a great meaſure

meaſure uſeleſs. Upon inſpecting the entrails of ſuch Horſes, I have ſeen the thin edges of the Lobes of their Lungs ſurrounded with tubercles, and knots of different hardneſs and of various ſizes, and ſometimes ulcerated, and with a cancerous ſmell and aſpect. In which caſe the Cough has been increaſed, and the ſhortneſs of breath, and working of the Flanks more violent, with the loſs of Fleſh; many of the ſame ſymptoms will alſo appear, where the Liver is ſchirrous; for as in that caſe it often produces a dropſical diſpoſition, eſpecially by long continuance, ſo the diſtention of the Liver, and fulneſs of the lower Belly, preſſes ſo upon the Midriff, as to hinder reſpiration, and cauſes a ſhort Cough. I have often ſeen the Liver impoſtumated, but rarely a true ſchirrous Liver in a Horſe, becauſe when it is ſo, the owners are perhaps ſoon obliged to part with them, to go into ſome mean drudgery, where they quickly end their days, or if they have been favourites, turn them out to die in the open fields, after they have done what they could to recover them.

The caſe of Horſes that wheeze and rattle, and are thick-winded.

The next caſe of a ſettled Cough and Aſthma, where a Horſe is extremely thick-winded, wheezes and rattles in his Throat, &c. proves often very obſtinate, though not altogether ſo dangerous and incurable as the preceding; for, as this proceeds from a viſcidity of the blood, which fills the veſſels of the lungs with phlegm and mucilaginous juices, it may be very much helped, if not totally cured, unleſs a Horſe be old, or the diſtemper of a long ſtanding, ſo as to have ingendered Grumes and Polipuſes, which

ſome-

ſometimes cauſe ſuffocation, or breed ulcers in the Lungs; but if it be otherwiſe that the Horſe is young, and has not been long under the diſtemper, I ſhould adviſe the following method: And firſt, if he be full of Fleſh, bleed plentifully, if low in Fleſh more ſparingly, which may always be repeated whenever there is a more than ordinary oppreſſion and difficulty of breathing. Mercurials are alſo of great uſe in this caſe, as well as in the preceding; and therefore a Mercurial Ball may be given over night, with two drams of Calomel, as above directed, to begin the cure, and the next morning the following mild purge.

Take Gum Galbanum Ammoniacum, and Aſſa Fœtida, of each two drams; fine Succotrine Aloes, an ounce; Saffron, one dram. Pound the Gums, and incorporate them well together; reduce the Aloes and Saffron into fine powder, and then pound them, and incorporate with the Gums, and make into a ball, with a ſufficient quantity of Syrup of Coltsfoot, or with Honey, adding two drams of Chymical Oil of Aniſeeds, and a dram of Oil of Amber, which may be rolled in Liquorice Powder. Their Cure.

This purge will work mildly, and thin the viſcid juices, open the breaſt, and ſometimes fetch away abundance of ſlime and naſtineſs out of the Bowels, and likewiſe diſcharge a great deal of impurities by Urine. The Mercurial Ball and Purge may be repeated three times or oftner,

oftner, at proper intervals, *viz.* once a week or ten days, which is ſufficient in adminiſtring alterative mild purges; for the uſual purges quickly repeated do hurt, by indangering inflammations in the Lungs of Horſes full of Blood, which in this caſe is carefully to be avoided. He muſt be kept from being wet in any part; his Water milk-warm, and the days of purging Scalded-Bran with ſome ſmall feeds of Oats; in the intermediate days, that is, the days between the purges, one of the following balls may be given every morning, with the uſual precautions, *viz.* by letting him faſt ſome time before and after.

Take the powders of Liquorice, Aniſeeds, Elicampagne, and flower of Brimſtone, of each four ounces; Saffron, dried with a moderate heat, and made into powder, half an ounce; [the beſt way to do this is to pull it aſunder, put it looſe in a paper-bag, and hang it up in a dry air, and it will be fit to reduce into Powder in twenty-four hours.] Juniper Berries pounded, two ounces; Garlick two ounces. Beat the whole into a paſte, with a ſufficient quantity of Honey and Linſeed Oil, adding an ounce of the Chymical Oil of Aniſeeds.

The doſe is the bigneſs of a pullet's Egg, made into a ball and rolled in Liquorice Powder.

Others may be made with leſs trouble, which in all common caſes will be attended with good ſucceſs,

ſucceſs, and often effectuate a cure: ſuch as theſe,

Take Liquorice, Aniſeeds, and Elicampagne, of each four ounces; Juniper Berries pounded, two ounces; Garlick, one ounce; Balſam of Sulphur, with Oil of Turpentine, and that made with Oil of Aniſeeds, of each an ounce; make into balls, with a ſufficient quantity of Oxymel of Squills.

Theſe are proper when a Horſe wheezes, and continues thick-winded, and with a Cough, even when he has recovered his appetite after an obſtinate Cold; they will ſeldom or never fail to do good ſervice, if the Horſe be free from a conſumption, and not old. Any of the above-mentioned pectoral powders made into balls, with Barbadoes Tar and Honey, will alſo be uſeful in all ſuch caſes; Galbanum Ammoniacum, Aſſa Fœtida, and all other warm attenuating Gums, are alſo of the greateſt ſervice; but nothing conduces more to the cure of a moiſt Phlegmatick Aſthma in a Horſe, than exerciſe in an open free air, when it is given with judgment, inſomuch that many Horſes have been cured by this alone, without the helps of phyſick, even when they have been ſo bad, that upon their firſt ſetting off could hardly accompliſh one mile in the ſpace of an hour; and indeed, where exerciſe is wanting, all other endeavours, by the propereſt and beſt medicines will avail but little. And here all the general rules and cautions that have already been given, concern-

The great benefit of exerciſe.

ing feeding and exerciſe, either after ſickneſs or in any chronical diſtemper, ought carefully to be obſerved and followed, *viz.* that their exerciſe be, as much as poſſible, in the open free air; that it be proportioned to the Horſe's ſtrength and conſtitution, and particularly, that it be gradual, only walking while the oppreſſion remains, ſuffering him to mend his pace, not by force, but of his own accord; and I need not tell the intelligent reader, how far ſome wheezing thick-winded Horſes will be relieved in two or three hours exerciſe, when it is given judiciouſly.

Bad winded Horſes often foul feeders.

But beſides theſe general rules of exerciſe, there is this particular to be conſidered, with reſpect to a thick wind, when it has the effect of an Aſthma, and is become a chronical diſtemper, which very much diſtinguiſhes this caſe from others; for as theſe are ſeldom off the Stomach, but on the contrary, are for the moſt part foul feeders, and naturally robuſt and ſtrong, unleſs after a freſh Cold or violent oppreſſive Paroxyſm, except at ſuch times, they will endure exerciſe and labour, as well as Horſes that are perfectly ſound, if the perſons intruſted with them have ſkill and diſcretion enough to manage them, and the more they are kept to exerciſe, and the longer they are continued in it, the faſter they mend: whereas a Horſe after ſickneſs, being uſually faint and weak, and, for the moſt part, low in Fleſh, is able to endure but little at firſt, perhaps to be walked a quarter of an hour, or half an hour, and ſo by degrees a longer ſpace, until he recovers his full ſtrength.

This

This is ſufficiently known to all that have had experience in ſuch things; ſo that I need only take notice, that to prevent their being hurt by their exerciſe, their feeds ſhould be ſmall, often, and well-timed; a Horſe that is ſubject to inward oppreſſions, and ſhort-breathed, ſhould never be ſuffered to have his belly-full, that is, to have his Stomach diſtended with large quantities of meat and water, for a diſtended Stomach will preſs ſo much upon the Midriff as to hinder reſpiration, and the quantity of food alſo increaſes the quantity of Blood in the Lungs, which muſt greatly increaſe the diſtemper, eſpecially if a Horſe happens to be exerciſed in this condition, muſt indanger a ſuffocation and ſudden death, or by breaking the ſmall Veſſels and Air-bladders of the Lungs, render him incurable, and end in a lingering death. And therefore the beſt way with ſuch Horſes is to abridge their hay, and that alſo to be given in ſmall quantities, for large quantities of hay not only keeps the Stomach always diſtended, but the Guts next below the Stomach are generally full alſo of crude aliment, which greatly augments the preſſure upon the Midriff, and thereby hinders the action of the Lungs. Their corn ſhould alſo be divided, and what is uſually given at twice, made into three or four portions; and ſo likewiſe concerning their water: indeed water not only moiſtens all the food and helps it the eaſier to digeſt, but alſo dilutes and thins the blood, which renders it the more neceſſary in all ſuch Aſthmatic caſes, that theſe maladies are in a great meaſure owing to the viſcidity and

tenacity of the juices, and therefore thoſe run to great extremes who reſtrain Horſes ſo much from water as many do, and therefore they ſhould be ſuffered to drink oftner than others, only not to fill their Stomachs with it, as they would for the moſt part do, if they were allowed their full liberty, but to give them ſmall draughts and often; and the benefit of water is plainly viſible in this, that ſuch Horſes, often in drinking, or ſoon after, throw up large quantities of white well-concocted Phlegm from their Lungs, which gives them great relief, and is always a good ſign, if not of perfect recovery, yet ſo far as to be uſeful. And I have known ſeveral Horſes have all theſe laſt deſcribed ſymptoms to ſuch a degree, and of ſo long continuance, that they were looked upon incurable, and yet have recovered to do good ſervice, and become their maſters chief favourites, with very little expence, only by a good œconomy in their feeding, and proper care in their exerciſe.

Reſtraining Horſes too much from water often injurious.

Of a BROKEN WIND.

THOUGH a dry ſettled Cough and Broken Wind may properly be reckoned among the Aſthmatick diſorders of Horſes, treated of in the preceding ſection, yet I imagined it might not be improper to conſider it apart from the others, there being ſome particulars in a Broken Wind that have not been taken notice of hitherto, which may, perhaps, be of uſe both to the Owners of ſuch Horſes, and to the practitioners in farriery.

Every

Every experienced perſon muſt needs know, that a dry chronical Cough, is one of the moſt obſtinate ſymptoms that can happen to a Horſe, and is ſeldom or never cured. Sometimes it is the forerunner of a Broken Wind; though we often find great numbers of Horſes tormented many years with a dry ſettled Cough, and go through much buſineſs, without touching their Wind.

A dry ſettled Cough not always the forerunner of a Broken Wind.

A Broken Wind, with a dry Cough, is properly a nervous Aſthma in a Horſe, and may proceed from any of the cauſes that produce the other ſpecies of that diſtemper, whereby the nervous parts of the Lungs and Midriff are affected, ſo as to ſtimulate the Glands and Membranes of the Wind-pipe, which muſt often excite a dry huſky Cough. It may alſo be natural to the conſtitutions of ſome Horſes, and no ways owing to the cauſes that bring on other kinds of an Aſthma, perhaps from the narrowneſs of the Thorax or Cheſt, whereby the Lungs have not ſufficient room for their neceſſary expanſion and dilatation, or from a defect in the Muſcles of the Cheſt and lower Belly, which aſſiſt in opening and contracting the Breaſt in reſpiration; ſometimes from the ſtate of the Blood and Nerves; and it may alſo proceed from accidents and hurts, in breaking young Colts, or even before they are taken up to be broke, from groſs-feeding, whereby many Horſes are injured, and contract a dry ſettled Cough, that were never known to have the leaſt ſickneſs or cold going before it. But the moſt uſual dry Cough, which is the forerunner of a Broken Wind, generally

The cauſes of a Broken Wind.

proceeds from a preternatural largeneſs of the Heart, Pericardium, and Lungs, a groſſneſs of the Mediaſtinum, with a relaxation and weakneſs of the Midriff, which will be more fully explained in the ſequel of this diſcourſe.

The ſigns and diagnoſticks.

The chief ſigns and diagnoſticks, whereby a dry or nervous Aſthma in Horſes is diſtinguiſhed from the other kinds, have been already laid down in the preceding Section, *viz.* Horſes that are truly Aſthmatick, from the above mentioned defects in their Lungs, or from a pituitous phlegmatick diſpoſition of their Blood, always ſhew ſome ſigns of diſtemper; whereas thoſe Horſes that have only a dry Cough, or thoſe that uſually go Broken-winded, for the moſt part look healthful and ſound, carry fleſh, and are well coated, hunt, and go through all manner of buſineſs with ſpirit and alacrity, but cough at uncertain times, ſometimes in the ſtable, ſometimes abroad in the air, and rather more in walking, than when in their exerciſe, except when they are ſtopped ſuddenly, which, if they have been hard rode, always makes them cough. In ſome changes of the weather, they ſhall cough pretty much for ſeveral days ſucceſſively; at other times they will go a week, a fortnight, or three weeks, and ſometimes much longer, without ever being heard to cough, or to ſhew any great diſorder in their Flanks. They ſeldom ſnort after coughing, or throw up any thing by the Mouth or Noſe, as Horſes do in a phlegmatick humorous Aſthma, but are commonly dry, or at leaſt caſt forth nothing but ſome drops of clear water, after a vehement fit of coughing. Theſe are the ſigns by which we may diſtinguiſh between a phleg-

a phlegmatick Aſthma and a dry Cough, and the other diſorders that threaten a Horſe's wind; but the true nature and cauſes of this diſtemper will require a more full diſquiſition.

A broken Wind for the moſt part incurable.

Now a Broken Wind is a malady in a great meaſure, if not altogether, incurable, whereof the dry Cough that goes before, and continues more vehement when confirmed, is only a dependent ſymptom, for in a broken-winded Horſe there is ſeldom any remarkable diſtemperature in the Blood, or any inward tumor or ulceration; but chiefly a diſproportion in the parts concerned in reſpiration: and it may be obſerved of moſt broken-winded Horſes, that they are naturally as hardy as others, and ſeldom die of that diſtemper, but by ſome ill management, which indeed ſometimes expoſes them to ſuffocation and ſudden death; eſpecially when they happen to be harraſſed and uſed with violence while the oppreſſion is upon them, or when they are kept ſtoving in a hot ſtable at a full diet, in hot weather, without air and proper exerciſe.

Broken-winded Horſes often found in their Vitals.

I have already taken notice that the ſymptoms obſervable in a Broken Wind, proceed from the preternatural largeneſs of the Heart, *Pericardium* or Heart-purſe; the largeneſs of the Lungs, thickneſs of the *Mediaſtinum*, and uſually an extreme thinneſs of the Midriff or Skirt, and a defectiveneſs of the other Muſcles concerned in reſpiration. This I diſcovered by opening broken-winded Horſes, one of which was killed on purpoſe, at the deſire of a perſon of diſtinction, who was the owner, that I might

be enabled to find out the true cauſe of a diſtemper ſo common, but hitherto ſo little underſtood. The Heart and Lungs in this and others that have been opened, were near twice the ſize they ought to be in proportion to the dimenſions of the other parts, but perfectly ſound without any tumor, or ſchirroſity, or the leaſt eroſion. Neither was there any defect in the Windpipe or its Glands, as we often ſee in many thick-winded blowing Horſes, and in thoſe where the Lungs are decayed and ulcerated. However, I do not pretend to ſay that every Horſe that has the true ſymptoms of a Broken Wind is found in his Vitals, being perſuaded of the contrary; for there is no diſtemper of any kind but what may be ſometimes complicated with ſome other malady; but thoſe I have ſeen opened were not ſo. From whence it is plain we muſt find ſome other way to account for the ſymptoms of a Broken Wind, than the cauſes uſually aſſigned for it, and the rather becauſe many Horſes with unſound Lungs have not the true ſymptoms of a Broken Wind; tho' ſuch are often tormented with a Cough, and with fits of Short Breathing, and one may diſcern at all times in ſuch Horſes, ſome diſturbance and uneaſineſs in their Flanks; but very different from the working and heaving of a broken-winded Horſe. Many of theſe Horſes are alſo but indifferent feeders, but broken-winded Horſes are commonly voracious and foul feeders, and even eat their litter, and never fail in their Stomachs, except when their exerciſe has been too violent, or when they happen to be oppreſſed with the extreme heat

Horſes that go Broken-winded commonly voracious feeders.

of

of the weather in ſummer; which oppreſſion is ſometimes ſo great that they are unable to feed, till they are removed to ſome place where they can have more air. Horſes that have their Lungs or other principal Viſcera fretted and diſeaſed, are ſoon tired and jaded, even with moderate riding; but broken-winded Horſes always mend their pace with gentle exerciſe, and go on the more chearfully the longer they are kept moving. When a Horſe is any where inwardly unſound, he generally in time waſtes and loſes his Fleſh, and ſome look ſurfeited and grow hide-bound. But many broken-winded Horſes continue in Fleſh, and as well coated as any other. And whenever we ſee a broken-winded Horſe with a ſurfeited coat, or loſe his fleſh very faſt, and fall off his Stomach, except from the above mentioned cauſes of ill uſage or exceſſive hot weather, we may reaſonably conclude that he is alſo inwardly unſound.

The ſymptoms in broken-winded Horſes compared with thoſe that are otherwiſe diſtempered in their Lungs.

In a broken-winded Horſe the Lungs for the moſt part fill up the greateſt Part of the cavity of the Cheſt, ſo as to hinder the action of the Midriff, in the aſſiſtance it gives in reſpiration. By a Horſe's horizontal poſition the Stomach, which lies on a level with the Midriff, muſt alſo confine its action very much by its preſſure from behind, to which inconveniency men, by their erect poſture, are very little expoſed, except when the Stomach is extremely full and diſtended. The ſubſtance of the Lungs being alſo, in this caſe of a Broken Wind, more bulbous and fleſhy than uſual, muſt likewiſe loſe a great deal of that ſpring and elaſticity which

is agreeable to their cartilaginous ſtructure, and which is neceſſary to act in concert with the Midriff, and with the Muſcles of the Breaſt and Lower Belly, in elevating and depreſſing the Thorax or Cheſt. The largeneſs and fleſhineſs of the Lungs may alſo be, in a great meaſure, the cauſe why the inſpirations in a broken-winded Horſe are always more ſlow than the expirations; for we may obſerve they drew in their breath ſlowly, their Flanks fill up, and riſe heavily, and with difficulty, but fall ſuddenly, and the breath burſts forth with violent force, both from the Mouth and Noſtrils, in ſo much that a man in the dark, by holding his hand on a Horſe's Mouth and Noſe, may eaſily diſcover if he is broken-winded or not. Now whether this unuſual ſize and configuration of the Lungs hinders their full expanſion, that they draw in leſs air, or that the fleſhineſs of their Cells cauſes the air not to be ſo equally diſtributed through all parts as it ought to be; or, on the other hand, whether they draw in a greater portion of air than ordinary, by reaſon of their ſize and dimenſions; whatever be the caſe, the length of time in inſpiration, and the continued elevation that accompanies it, keeps the Midriff, and all the Muſcles concerned in inſpiration, ſo much upon the ſtretch, and ſo long extended in every inſpiration, as may exceedingly relax and weaken them, and alſo prove painful: Whereas the Muſcles concerned in expiration may become habitually contracted and ſhortened, and conſequently reſpiration irregular and convulſed; and therefore a Broken-wind in

a Horſe

a Horſe may properly enough be defined, a convulſive diſpoſition of the Lungs, Midriff, and other parts concerned in reſpiration, and perhaps only differs in degree from the nervous dry Cough above deſcribed; and when the latter eſcape with their wind unbroke, it is probable that may be owing either to an uncommon goodneſs in their conſtitutions, or to ſome extraordinary careful management, or perhaps to both.

A Broken Wind properly a convulſive diſpoſition of the Lungs, &c.

I have ſometimes looked upon a Broken Wind to be in a great meaſure an hereditary diſtemper in Horſes, as Aſthmas, and many chronical diſtempers are to ſome human conſtitutions at a certain period of life; becauſe moſt of theſe kind of Horſes generally grow broken-winded when they are riſing eight years old, ſome riſing nine, but very few before eight or after nine. Indeed a Broken-wind may happen to ſome Horſes more than others, from a peculiar texture and diſpoſition of thoſe parts where the malady chiefly reſides; for one Horſe may naturally have his Lungs and other organs employed in reſpiration of larger and more lax contexture than another, without any accidental cauſe. In ſome the fault may be chiefly in the Muſcles being ſo diſpoſed in their action and reaction as to add to the increaſe and bulk of one part, and the decreaſe and diminution of another. In others the original defect may be in the Nerves, which are always more or leſs faulty in ſuch caſes, and ſometimes there may be a combination of all or ſeveral of theſe cauſes found together, wherein the diſtemper may be reckoned in a great meaſure hereditary. Nevertheleſs we may

Horſes generally go broken Winded when they are riſing eight or nine years old.

In ſome Horſes a Broken Wind may be hereditary.

may find out other cauſes that may give a beginning to all or moſt of the defects and ſymptoms that are obſervable in broken-winded Horſes.

From what I have obſerved in many Horſes that have gone broken-winded, I am apt to imagine the ſource of this infirmity is for the moſt part owing to injudicious or haſty feeding young Horſes intended for ſale; eſpecially thoſe that are taken up lean from winter graſs, or have been worked hard and poorly fed; for in both theſe caſes their Fleſh generally ſticks ſo cloſe to their ribs, that the firſt nouriſhment they get by additional feeding increaſes the growth of the Lungs, Heart, Midriff, and other internal parts, as a conſiderable portion of the aliments, when it is newly converted into Blood, immediately enters the Lungs by the Subclavian Veins, and cannot be ſo ſoon admitted to a free paſſage any where elſe. For the parts lying at a greater diſtance having in all lean habits moſt of their ſmaller Veſſels collapſed and ſhrunk, eſpecially towards the extremities of the ſkin, muſt therefore reſiſt the ingreſs of the arterial Blood, and thereby tend greatly to increaſe this redundancy in the ſoft parts within the cavity of the Thorax, before the external parts can be ſufficiently relaxed and opened, not altogether unlike what happens to ſome children that run all into Belly, and turn rickety, by being fed with too great quantities of ſpoon meat, butter, and other relaxing diet, and at the ſame time have not been enough hoiſted and exerciſed by their nurſes.

A Broken Wind may proceed from errors in feeding, &c.

Now

Now this kind of management in feeding lean Horſes expoſes them to many dangerous accidents, as I have taken notice elſewhere, ſuch as frequent Colds, Fevers, Pleuriſies, inward Inflammations, which ſometimes end in inward Inflammation, and Rottenneſs. And if they eſcape theſe diſaſters by indefatigable care, or by the natural ſtrength and vigour of their conſtitutions, with the helps of phyſick properly adminiſtered, or by any other good conduct; it is great odds if many of them do not turn broken-winded when they have done growing, and begin to fill up in Fleſh, which I take to be the caſe of many of thoſe Horſes that loſe their Wind. The manner of their feeding for ſale contributes greatly to this malady, moſt of the food adminiſtered by the breeders or firſt purchaſers, before they come into the hands of our *London* dealers, (which conduct ſome of them alſo too much follow) is of that kind, and ſo managed as to turn the ſooneſt into nouriſhment. And where the Lungs and other ſoft parts happen to be naturally larger than ordinary, as they are undoubtedly in ſome Horſes, and the appetite to feed ſtrong, the danger is then the greater, and the caſe the more hazardous.

This I imagine will appear pretty evident to thoſe who have been concerned with any number of young Horſes that have ſtood together, and been in the ſame keeping; for we can never make ſo certain a judgment from ſingle inſtances, or from a ſmall number as from many. I have often known forty young Horſes or upwards bought in one ſeaſon for the Troops that

No right judgment can be formed from ſingle inſtances.

were under my care, whereby I had opportunities of this kind beyond what is common. Moſt of theſe being but four or five years old, few of them eſcape Coughs and Colds upon their firſt coming in, by the change of air, change of diet, and a very different kind of exerciſe, from what they had been accuſtomed to, eſpecially after they had lain ſtill without any other exerciſe, perhaps for three or four months, beſides leading them out once or twice a day to water. Some young Horſes will alſo cough upon ſhedding their Teeth, or the coming in of their Tuſhes; yet theſe for the moſt part ſoon recover with a little care and good management. But among ſo great a number, I always found ſome few that coughed more vehemently, even than the Horſes that had the greateſt Colds, and without the leaſt ſign of ſickneſs or loſs of appetite; and theſe, generally ſpeaking, were the Horſes that turned broken-winded. Theſe Horſes were always treated as the others that recovered of their Colds, both with reſpect to food and phyſick, and when their Coughs were found to be obſtinate, further trials were made to remove them. Sometimes with ſoft balſamicks; ſometimes with things both balſamick and deterſive; ſometimes with evacuations, and after theſe with the moſt powerful and efficacious alteratives, which would often have ſo good an effect, as to abate the Cough, and enable thoſe Horſes to go through their common buſineſs; but upon the changes and alteration of the weather, or any uncommon duty, the Cough generally returned with as much violence as ever,

eſpecially

eſpecially in very ſharp winds or cold damps, or by any other means that gave a ſudden check to tranſpiration; ſo that ſeldom any more could be done than to palliate thoſe ſymptoms, and it was well when they went no further than to end in a ſettled dry Cough.

Thoſe ſigns that are the moſt certain forerunners of a Broken Wind.

Having premiſed theſe things, I ſhall add further to what I have already laid down concerning the ſigns of a Broken Wind, that there is a dry huſky Cough always previous to it, and a certain forerunner of it, without any ſickneſs or loſs of appetite. On the contrary, theſe Horſes are generally voracious foul feeders, and for the moſt part eat their own wet litter, which, like a ſpunge, fills up their Guts, and greatly helps on that diſtemper. The Cough continues more or leſs at a ſtay, from four or five years old, till ſeven, during which time this continual diſpoſition to cough paſſes only for an obſtinate cold with moſt people; but afterwards when a Horſe is turned ſeven, coming eight, the caſe grows more apparent and viſible; for then beſides his Cough, which grows ſtill more violent and more frequent, he alſo heaves and labours in his Flanks without, or with very little intermiſſion, eſpecially when he has been newly fed, or immediately after drinking, as has been already obſerved, becauſe the extreme fulneſs of the Stomach always interrupts the action of the Lungs and Midriff. There alſo appears a quick motion and working of the Noſtrils, with a continual motion of the Fundament, occaſioned by the convulſed ſtate of the Muſcles concerned in reſpiration, and is alſo the occaſion of that well

known

known ſymptom of Farting, by the frequent ſtops in coughing.

Some Reaſons why a Horſe's Wind generally goes when he is about eight years old.

Now the reaſon why all theſe ſymptoms of a Broken Wind become moſt apparent at this age, *viz.* when a Horſe is about eight or coming eight, I take to be chiefly, becauſe a Horſe at that time uſually arrives at his full ſtrength and maturity. He finiſhes his growth in height commonly at ſix, and ſome Horſes of a compact mould ſooner, as I have often obſerved by frequent meaſuring. After that he lets down his Belly, and ſpreads till the time above mentioned. As he grows in Fleſh, the oppreſſion upon his Lungs, Midriff, and other parts, becomes the greater, becauſe there is then a greater preſſure and bolſtering up of thoſe parts, occaſion'd by the plenitude and fulneſs of the Veſſels. The filling up of the Interſtices with fat, and all other vacant ſpaces, both external and internal, ſo as to cauſe a very great oppreſſion, where the Lungs and other principal Bowels are preternaturally large; ſo that whoever rightly conſiders theſe things, will find that a Broken Wind may be reckoned among the incurable diſtempers of Horſes, and that all the boaſted pretenſions to the cure of this malady, are in a great meaſure vain and frivolous. And therefore I ſhall only lay down ſuch Methods, as may be the moſt likely to keep Horſes from going broken-winded, or, if that cannot by any means be prevented, to render them as uſeful as poſſible, by pointing out the proper means, whereby the worſt ſymptoms may be greatly mitigated,

ſo as a broken-winded Horſe may be rendered of ſome uſe to his owner.

While a Horſe has only a dry, obſtinate Cough, without any viſible ſickneſs, or loſs of appetite, but on the contrary a great and foul feeder, with an eager diſpoſition to eat his litter, and to drink much water; theſe being the uſual forerunners of a Broken Wind, no method ought to be uneſſay'd, if the Horſe be of value, to prevent his falling into that diſaſter. In order to which, it will be proper to begin with bleeding the Neck, or Plate Vein, and after that mercurial phyſick well prepared will be of great ſervice. Calomel is the fitteſt for this purpoſe, and may either be given alone before the purges, or made up with them. When the Calomel is given before the purge, it may be done in the following manner.

The beſt Method to prevent a Broken Wind.

Take Mercurius Dulcis, or Calomel, two drams; Diapente, one ounce; make it into a ball, with a ſufficient quantity of common Treacle, or a ſolution of Spaniſh Liquorice, and roll it in Liquorice Powder.

Mercurial Phyſick proper in ſuch caſes.

Let this be given in the morning, keeping the Horſe faſting three hours before, and three hours after it; two days after this Ball let the following, or any other good purge be adminiſtered, *viz.*

Take the beſt Succotrine Aloes, ten drams; Jallap in powder, one dram; and if the Horſe be ſtrong and not eaſily mov'd, two or three drams of Jallap may be put into the purge; Salt of Tartar, two drams; grated Ginger,

Ginger, one dram; make it into a Ball, with a ſufficient quantity of Syrup of Roſes, or Syrup of Buckthorn.

The mercurial ball and purge, may be twice or three times repeated, after the firſt, at proper intervals. The Horſe muſt be kept cloath'd, and not ſuffered to go into the water, or to be wet, or drink cold water, but warm, with a little bran or oatmeal ſqueez'd into it, and muſt be fed as in all other caſes where purges are given.

As it is reaſonable to ſuppoſe in moſt, or all theſe caſes, ſome degree of ſharpneſs and aſperity in the juices, which ſtimulates the nervous parts of the Lungs and Windpipe, ſo as to create a continual tickling and vehement cough; therefore it will be alſo neceſſary, in the intermediate days between the purges, to adminiſter things that are ſoft, healing, and balſamick, as well as thoſe that are cleanſing and attenuating; for ſoft balſamick medicines alone will only palliate, but not effectuate a cure. Nevertheleſs, theſe are principally to be uſed when the Cough is moſt vehement, to remove the tickling, and heal the inward ſoreneſs, as Spermacœti, Linſeed Oil, and Honey, which is not only balſamick, but moderately deterſive, ſolutions of Gum Arabick, Gum Tragacanth, and ſuch like. But nothing does better to abate the cough, and heal the ſoreneſs occaſion'd thereby, than the following appoſem.

Take Hyſop, Pennyroyal, Horehound, and Coltsfoot, of each a handful; freſh Linſeed bruis'd

bruis'd, two ounces; Aniſeeds and Liquorice, of each an ounce; Valerian, ſix drams; Saffron, two drams; infuſe in two quarts of boiling water in a deep pan, and let it ſtand covered all night.

Divide into three doſes, and adminiſter them between the purges, *viz.* beginning the morning after the phyſick has done working, and giving one every day blood warm. The ſame method may be followed after the ſecond and third purge. And if the Horſe ſhould have any ſymptoms of a freſh Cold, two large ſpoonfuls of Honey, and two ounces of Linſeed Oil, or Sallad Oil, may be added to each doſe.

The following balls are both balſamick, and ſomewhat deterſive, and being portable, may be conveniently given upon the road, or after hunting, to ſuch Horſes as are ſubject to cough.

Take Venice Turpentine, and Conſerve of Roſes, of each two ounces; Elicampane, Liquorice, and Aniſeeds in Powder, of each four ounces; Garlick pounded, two ounces; Spermacœti rub'd down in a Mortar, with the Yolks of two new laid Eggs, one ounce; Honey a quarter of a pound; make into balls, with a ſufficient quantity of Linſeed Oil.

A proper method to be followed in caſe of a freſh Cold, or when the

One of theſe may be given every morning in time of hunting, or on the road every day, or every other day, according to the urgency of ſymptoms, that is, as the Cough happens to be more or leſs vehement, and will very much help a Horſe

Cough happens to be vehement.

a Horſe to go through his buſineſs. All the ſoft, healing pectorals preſcrib'd in Colds, Aſthmas, and other diſorders of the Breaſt and Lungs, are proper in this caſe, to abate the Cough when it is violent, and the ſoreneſs occaſion'd thereby; but theſe are only pallative, and tho' they may remove urgent ſymptoms, that ſometimes ariſe upon catching a freſh Cold, yet they will ſignify but little in carrying off the cauſe; and where any attempt is made to do that, ſuch things are only like to ſucceed, that are both deterſive and attenuating, and adapted to open the obſtructions of the ſmalleſt Capillary Veſſels that clog the Nerves; neither will theſe anſwer to any good purpoſe, unleſs they be continued for a conſiderable time, for two or three months at leaſt.

The following is one of the moſt efficacious remedies I ever knew, for removing a ſettled Cough; tho' I ſhould adviſe any one who has a valuable Horſe with this infirmity, not to be too late, but to begin betimes; for if once a Horſe comes to be full ag'd, tho' the Cough may be removed for a ſeaſon, it will be apt to return again, and generally increaſes, and becomes harder as he grows older; ſo that it will be in vain to expect a cure, and all that can be done for him muſt be in his feeding and exerciſe. The remedy I would recommend for this purpoſe, is made up into balls, that being the moſt convenient form, and the beſt ſuited to the ingredients. They will not come ſo cheap as many other preſcriptions of this kind, but I have found them ſo efficacious in removing obſtinate

Coughs,

Coughs, and ſometimes ſo ſoon, that the expence has been but ſmall, compared with the good they have done, and therefore I can recommend them for Horſes of value.

An excellent remedy to prevent a Horſe going broken-winded.

Take Aurum Moſaicum, in fine powder, eight ounces; Myrrh and Elicampagne, in powder, of each four ounces; Aniſeeds and Bayberries, of each an ounce; Saffron, half an ounce: make into balls, with a ſufficient quantity of Oxymel of Squills.

The Aurum Moſaicum, which is the baſis of this compoſition, is made of equal parts of Quickſilver, Tin, Sal Armoniack and Sulphur. I have uſed it in ſeveral different forms of balls, and often with great ſucceſs, in obſtinate dry Coughs; and though it is a mercurial preparation, yet it is ſo ſafe in its operation, that it may be continued a long time together, without the leaſt danger. The other ingredients are warm and attenuating, and give great relief in all nervous diſorders; the doſe is the uſual quantity, *viz.* the bigneſs of a pullet's egg, or of a large French walnut; one to be given every morning, and to be continued for a month or ſix weeks, even though the Horſe ſhould ſoon leave off coughing; it would not be amiſs to give a couple of mild purges, before he begins to take the balls, and one or two more after he leaves off taking them.

The following preſcription is alſo very efficacious, and will anſwer in moſt caſes that are curable, *viz.*

Another for the ſame purpoſe.

Take Gum Ammoniacum, Galbanum, and Aſſa Fœtida, of each two ounces; Garlick, four ounces; or four middle-ſized heads; Cinabar of Antimony, ſix ounces; Saffron, half an ounce: make into a paſte for balls, with a ſufficient quantity of Honey.

Let the Gum Ammoniacum be ſoftened, by pouring a little vinegar upon it, and when it has ſtood ſo all night, pound it well firſt by itſelf, and then with the Galbanum and Aſſa Fœtida, without ſtraining theſe Gums, only picking out the larger ſticks, for the ſtraining weakens them, and deſtroys part of their efficacy; the Garlick muſt be peeled and pounded with the Gums, and the Cinabar of Antimony muſt be rubbed in a clean mortar, till all the gliſtening diſappears, and turns into a red or crimſon coloured powder; then add the Saffron, and mix all together with the Honey, and when the whole is well incorporated, give the ſame quantity as of the preceding, *viz.* of a pullet's egg, every morning an hour or two before feeding time.

Theſe are not ſo chargeable as the other, the Cinabar of Antimony being not above half the price of the Aurum Moſaicum, which are both at a fixed rate; but the foreign drugs are uncertain, for the Galbanum was, but a few years ago, ſold at forty ſhillings a pound, and has been ſince, not above ſo many pence, which may be eaſily enquired into before a medicine of this kind is made up; but according to the rate theſe drugs are uſually ſold at, the laſt balls will

will not much exceed the price of our common Horſe balls.

The following will alſo be found efficacious in all dry Coughs, eſpecially when there happens to be a freſh cold, or any other concomitant diſorder, that may cauſe eroſions and ſoreneſs in the Lungs.

Take the cleareſt ſhining Antimony, made into an impalpable fine powder, eight ounces; Garlick pounded, Flowers of Brimſtone, and dried Coltsfoot, of each four ounces; Elicampagne, and Liquorice Powder, of each ſix ounces; Valerian Root in powder, two ounces; Saffron, ſix drams; Spaniſh Liquorice diſſolv'd in white wine, one ounce: make into balls, with a ſufficient quantity of Oil of Olives or Linſeed Oil.

Theſe may be given a month or ſix weeks, as the others, and will come as cheap as any of the common Horſe balls to thoſe who will take the trouble of making them for their own uſe. Garlick alone, cut ſmall, two or three cloves in a feed, has often been found to do good ſervice, when continued in all ſuch obſtinate Coughs. Some at the ſame time ſprinkle their hay and their oats with chamber-lye, which is alſo a help in theſe infirmities, which perhaps may be owing to the volatile ſalts of the urine; and it has always been obſerved, that the wetting ſuch Horſes feeds, even with water, leſſens their inclination to drink, to which many of them have a ſtrong propenſity. I have known abundance of Horſes, by the conſtant uſe of ſuch things,

Garlick uſeful in dry Coughs.

and with right and well-tim'd exercise, and careful feeding, recover to admiration, even when there has been a suspicion of their wind.

When the Coughs leave a Horse of a sudden, and not gradually, it is apt to return.

If these obstinate Coughs wear off gradually, with the use of proper means, there is hopes of a recovery, and is a sign the medicines take a right effect, and ought therefore to be continued for some time; but when the Cough leaves a Horse of a sudden, perhaps for a week or a fortnight, and as suddenly returns, notwithstanding all proper helps have been given to remove it; this shews the case to be obstinate, and in a great measure incurable.

Some Horses in a dry Cough, will, now and then, after snorting, throw out of their Noses a white well-digested phlegm, about as much as an egg-shell will hold, which is usually followed with some drops of clear water; and because this always gives relief, when it is natural, and not forced, some have therefore been encouraged to

Injections into the Nose for the most part hurtful.

inject mixtures of oil, vinegar, and pepper, with other stimulating things, into the Nose, to procure a running from thence: but I cannot say I ever saw any good come from such practice; and indeed most dry Coughs, that are curable, wear off insensibly, without any discharge at all from the Nose, more than may be common at some times to all other Horses.

Many other means have been used to remove obstinate coughs, and to prevent their going broken-winded, which I shall here omit, as being of little certainty, and shall only mention one more, which I have known to do good service, and may easily be procured, in all places; and that

is,

is, to boil ſome heads of garlick in new cow's milk, which, however, requires ſome few cautions, which I ſhall mention from experience. The uſual doſe of the garlick is large, being no leſs than ſix whole heads, which are very different in ſize, ſome being four times larger than others; and therefore the doſe muſt be very uncertain. Theſe are boiled in three pints of milk to a quart, which is poured off, and given early in the morning, after a Horſe has ſtood ſeveral hours faſting. But I have known ſome Horſes of ſqueamiſh conſtitutions, ſo deſperately ſick with the doſe, when the heads of garlick happen to be large, that they have not recovered their appetite for ſeveral days after it; and therefore I have adviſed thoſe who have been inclinable, to uſe this eaſy remedy, to weigh the garlick, three ounces, which is about ſix middle-ſized heads, to peel it well and bruiſe it, and boil it only a ſhort ſpace in a quart of milk, for the long boiling thickens the milk, and makes it more ſickly and clogging. Some Horſes are ſo delicate, that they cannot even bear it of that ſtrength, without very great diſorder, and to ſuch I have adviſed half milk half water, and ſometimes to leſſen the quantity of the garlick; and I have known theſe things given every other day, for a week or a fortnight, remove very obſtinate coughs, but then they were adminiſtered in time, before the Cough was become habitual and fixed.

Garlick boiled in new milk ſometimes helpful in obſtinate Coughs.

But where a Cough is not to be moved by the help of medicines, the beſt way to keep it moderate, and to prevent a Horſe's going broken-

The exerciſe and feeding proper in

obſtinate Coughs, and where a Horſe's Wind is faulty.

winded, is, principally to obſerve a juſt œconomy in his feeding and exerciſe; his feeds ſhould be divided and given often; a moderate quantity of hay, or any other kind of diet that may not fill up the Stomach and Guts too much, and excite him to drink beyond meaſure; and this caution ſhould be obſerved, even tho' he does not carry a Belly, which is the caſe of many young Horſes, while they are growing; his exerciſe ſhould be conſtant, and more than perhaps is needful for others that have not the like ſymptoms; and as we ſuppoſe the Lungs and ſome others of the Viſcera to be large and over-grown, the following alterative ball may be given once a fortnight, or once in three weeks, to attenuate the Blood and Juices, and to make revulſion, the better to fit the Horſe for his exerciſe.

Take Succotrine Aloes, ſix drams; Myrrh, Gal-banum, and Ammoniacum, of each two drams; Saffron, one dram; and Bayberries, half an ounce. Let the ingredients be pounded and made up into a ball, with an ounce of Syrup of Buckthorn, and a ſpoonful of the Oil of Amber.

Theſe may be continued for two or three months, during the ſpring ſeaſon, when ſuch Horſes are much ſubject to cough. It will work ſo gently as ſeldom to hinder a Horſe from his uſual exerciſe, or buſineſs, excepting the day he takes it, which is but one day in a fortnight or three weeks, when it will be proper for him to have a little warm meat and water. Theſe things, with conſtant exerciſe, may gradually

abate

abate the ſuperfluous growth of Fleſh, whether internal or external; will help to remove the redundancies that may clog the nerves, and hinder the regular actions of the muſcles, which is the moſt feaſible way of all others to prevent a broken-wind; but for Horſes of ſmall value, where the owners are unwilling to be at much charge or trouble, I would only recommend conſtant well-timed exerciſe, or to keep them conſtant in ſome daily work that is not too hard and ſtraining, but moderate, by which alone many Horſes have been preſerved from loſing their wind; for we find but few Horſes go broken-winded, that have been uſed to buſineſs or labour, from the time they were firſt broke; but chiefly thoſe that have been pampered and delicately kept, or have been under ſome other ill management.

But I ſhall now proceed to lay down ſome methods for the right managing thoſe Horſes that have irretrievably loſt their wind, which, as I have already obſerved, generally happens when they are about eight, or coming eight years old; for at that time, a few hours hard riding, eſpecially upon a full Belly, will frequently bring their caſe to an undoubted certainty, which before was perhaps only looked upon as an obſtinate cold; and from hence many have concluded Colds to be the true cauſe of that malady, or riding a Horſe beyond his wind. It is true, a very great Cold may, when attended with other ſymptoms, end in a Broken-wind, and ſo may exceſſive hard riding at a critical time; and likewiſe, ſeveral other errors in conduct

conduct may have the ſame effect. But it ought alſo to be conſidered (what every one who has experience in this matter muſt needs know) that Horſes at this age often go broken-winded in one night's time in the ſtable, that have had no immoderate exerciſe, nor been under any remarkable miſconduct in their diet or in other reſpects, but merely at a certain period, in the manner that has been accounted for. In others the diſtemper comes more gradually to its ſtate, where a foundation has been laid, either from a natural defect, or from former miſmanagement; for if it was otherwiſe, all Horſes would be alike ſubject to it, eſpecially upon catching cold, hard riding, or riding upon a full Belly, or after a bellyful of water: but we daily ſee the contrary; and we may obſerve further, that the very ſame Horſe that goes broken-winded at ſeven or eight years old, ſhall, before that time, go through very ſevere exerciſe, and other ill treatment, without being much hurt, till his veſſels are filled and all his parts grown to their full extent, and then the leaſt irregularity of any kind, and oftentimes the beginning of hot weather alone, breaks a Horſe's Wind that has a previous diſpoſition to it, as I have frequently obſerved: for the Lungs of ſuch Horſes being, for the moſt part, preternaturally large, and always more flatulent and flabby than in other Horſes, from whatever cauſe this proceeds, they grow ſtill more full and diſtended to their period; the veſſels of their Lungs more relaxed, and conſequently more unfit for a regular uniform motion, which hinders the free tranſmiſſion of the air,

air, and weakens the Tone of the Muſcles. For not only the Midriff in this caſe generally becomes thin and emaciated, but many of the other Muſcles employed in reſpiration grow weak and extenuated, as any one may eaſily perceive, by carefully obſerving the Flanks, the Breaſt, and Belly of a Horſe, that has been but a ſhort time labouring under this malady; for afterwards the caſe alters, but at firſt we may obſerve, that all the depreſſors of the Thorax, and thoſe that act in concert or affinity with them, are ſomewhat convulſed, and in a more conſtant ſtate of contraction than what is to be ſeen in a Horſe that has no infirmity; and from hence one may alſo learn the reaſon why a broken-winded Horſe is always worſe the firſt year, and afterwards grows gradually better, if he meets with no accidents or ill treatment. For altho' this violent labouring and ſtriving for breath, is exceeding troubleſome and painful to ſuch Horſes, yet their Lungs being generally ſound and intire, and their veſſels in no degree injured by this agitation, the Blood by that means becomes more attenuated, the air paſſes and repaſſes with a greater force and impulſe than before, whereby the Veſſicles and Air-Bladders of the Lungs become more open, thin and pliable, by which their whole ſubſtance may leſſen both in weight and bulk; and as there is by degrees a freer paſſage for the air through all parts of the Lungs, ſo the Muſcles of reſpiration in ſome degree recover their proper tone, the Extenſors becoming leſs relaxed, and the Depreſſors leſs rigid in their contractions, and by degrees

degrees act with more uniformity, and as more equal antagoniſts one to another. This I apprehend to be the way how we are to account for the amendment we obſerve in broken-winded Horſes, when the diſtemper is paſt its period, which in thoſe that are not very old, is often attended with ſuch a turn, as renders them more uſeful than they were before. But as the diſtemper is a conſiderable time in coming to its period, ſo the recovery is alſo gradual and ſlow, and ſeldom or never perfect.

How a Horſe ought to be treated when his wind is totally gone, ſo as to render him uſeful.

Now the knowledge of theſe things will lead us into the true method how a Horſe ought to be treated when his wind is totally gone, ſo as we may help to abate the moſt preſſing ſymptoms, and to render him ſerviceable and uſeful under this infirmity. And here it is to be remembered, that ſome loſe their wind gradually, others all of a ſudden; tho' theſe alſo have always a hard Cough and the other ſymptoms previous to a Broken-wind; ſo that the diſtemper coming more ſuddenly to ts period, in one than another, may be owing to ſeveral cauſes and accidents which have been already hinted at, and which I ſhall not ſtay here to repeat, only thus far I have often obſerved, that thoſe kept in conſtant regular exerciſe, neither loſe their wind ſo ſuddenly as thoſe that have been neglected or abuſed in their exerciſe, nor are their paroxiſms ſo violent in the height of their diſtemper. But however that be, the method of relieving broken-winded Horſes is generally the ſame in moſt or all circumſtances.

When

When a Horſe is ſeized with a violent agitation and an uncommon oppreſſion, as happens ſometimes upon the going of the wind in the firſt of the hot weather, that he can neither eat nor drink, nor ſwallow any thing down, by reaſon of this oppreſſion and want of breath, the beſt way in this caſe is to open all the ſtable-doors and windows, to let in as much air as poſſible, and to keep the windows and air-holes (if there be any) open night and day; for during the paroxyſm no medicines can be ſafely adminiſtered, and the forcing down drinks and balls only endanger a Suffocation or Inflammation of the Lungs, either of which might eaſily prove fatal; and I am perſuaded many Horſes are ſpoiled by hurrying things too ſoon upon them. The next thing, after you have given him air, is to take a moderate quantity of Blood. Three pints is ſufficient at once, which may be repeated as you ſee occaſion. You will obſerve him ſometimes try to eat, and crave after drink, but during the violence of the fit is able to do neither; and I have known ſome Horſes continue in this miſerable condition ſeveral days. The only method I found to keep them from ſtarving was, to put a ſmall feed of ſcalded bran into the manger at ſupper time, and tho' he will no ways taſte it while it is hot, yet in the cool of the night he will pick it up by little and little. Sometimes Horſes in this condition are not able to reach up to the rack, eſpecially if the rack be high; but if a little ſweet hay is laid upon their litter, they will pick up that alſo, and ſometimes part of their litter, which therefore ought

ought always to be freſh and clean. Water-gruel or white water may be given them cold for their drink, about two or three quarts at a time, eſpecially in the morning and cool of the evening, in the hot weather; for in the middle of the day, tho' their thirſt is often violent, they are unable to ſwallow; and therefore as drinking is extremely neceſſary to dilute their Blood, they ſhould be indulged in it all proper times, and not be reſtrained from water, in ſuch a manner as many do, from a notion that it is hurtful to them, only they ſhould never be indulged to fill their bellies too full, but to be ſuffered to drink in ſmall quanties and often. And whoever follows this method will always find their account in it.

When Horſes loſe their wind in the hot weather, there is ſcarce any ſtable to be found cool enough for them. And therefore they ſhould be walked in hand in ſome ſhady place, in the middle of the day, when their oppreſſion is the greateſt, whereby they always find great relief; and as ſoon as the moſt violent ſymptoms abate, that they are fit to be mounted, they ſhould be carried out daily five or ſix miles into the open air, with all the gentleneſs imaginable, and the rider ſhould ſtop frequently after his firſt ſetting off, to let his Horſe take breath. By this means the violence of the fit will ſoon abate, and the Horſe will come to eat and drink what is ſufficient for him, and be enabled to do buſineſs with good uſage; and by keeping him in conſtant moderate exerciſe, he will mend gradually till the next ſpring or ſummer, when the ſame ſymptoms uſually ſhew themſelves, but not in ſo violent

lent a degree, ſo as to render the Horſe altogether uſeleſs, as at the firſt, and may either in ſome meaſure be prevented or ſhortened by a careful management, ſuch as not ſtiving them up too hot, keeping them to a low diet, and working them accordingly, eſpecially to be ſparing of hay, or any other kind of food that fills the Stomach, and cauſes a diſtention there and in the Guts. The wetting their hay and corn with chamber-lye, or ſometimes with fair water, a thing now in the acquaintance of moſt people, is alſo a help to broken-winded Horſes, not only as the moiſtening of their food makes them crave leſs after water, but perhaps there may be ſome virtue from the volatile ſalts in the Urine, as I have already taken notice, in a dry ſettled Cough, for all volatiles are good in ſuch caſes. For the ſame reaſon Garlick is of great uſe in all obſtinate Coughs, and broken-winded caſes, as it abounds with volatile parts, and is alſo healing and balſamick, and may be given five or ſix cloves at a time in every feed, and continued during pleaſure. All the things preſcribed in obſtinate dry Coughs are alſo of great ſervice in a Broken-wind, and even careful feeding and moderate exerciſe has greatly relieved many broken-winded Horſes, after all the helps from medicine have failed, tho' never ſo perfectly but ſome veſtiges of it always remain, as fits of coughing upon change of weather, and a diſorder in the Flanks after hard riding.

Indeed few broken-winded Horſes (where the caſe is ſo violent as has been deſcrib'd) are able to indure much exerciſe the firſt ſummer; but I have known many that have been very little

little oppreſſed the ſecond, and ſome ſcarce perceivable the third ſummer, but have by that time been able to bear all manner of fatigue, both in hunting, and every other buſineſs, after they have been ſet aſide as uſeleſs, or have been uſed only as Hacks. The reaſon of which unexpected alteration, I have already in ſome meaſure laid down: for if Horſes are not too much haraſſed in the beginning, ſo as to make infarctions in their Lungs, or other inward parts, to break the ſmall veſſels, and thereby raiſe inward Inflammations; the Lungs, the Heart, the Midriff, and all the other Muſcles concerned in reſpiration, will in time recover their tone in ſome meaſure, and the actions of all thoſe parts at length grow familiar and eaſy, and even any inward, preternatural growth of the *Viſcera* may be leſſened, the parts that in the paroxyſms or fits, were too much contracted, will loſe their rigidity, and thoſe that were relaxed, grow more firm, and recover their ſpring, ſo as to act with more uniformity.

This is plainly perceivable in broken-winded Horſes. In the extremity of their diſtemper they appear hollow, and pinch'd in their Flanks, and their Bellies. Their Thighs and Gaſcoins alſo look ſomewhat waſted and ſunk, but as they recover, theſe parts begin to fill up, and in time, a broken-winded Horſe, with good uſage, will again let down his Belly, his Breech grows more round, his Breaſt more full and expanded, and appears tolerably eaſy in breathing, inſomuch, that thoſe who are not in ſome meaſure acquainted with the different ſtates of Horſes, will

will ſcarce perceive him by his looks to be any ways defective, unleſs he happens to diſcover his infirmity by his cough, which in ſome degree will hang by him to the laſt.

I ſhall not here mention the innumerable experiments that have been try'd to cure broken-winded Horſes, ſuch as injections into the Noſe, drinks loaded with numbers of ingredients, ſometimes with raw eggs, oil, butter, and ſuch like, whereby ſeveral Horſes have been kill'd, or rendered in a great meaſure uſeleſs. Nor need I take notice of the method ſome have, of boring into the ſide of the Streight Gut, to make a freer paſſage for the air to vent backwards, which will appear altogether abſurd, after the account I have already given of theſe kind of maladies, ſeeing the wind and flatulency ſo obſervable in the Bowels of a broken-winded Horſe, which cauſes the working of his Fundament, is occaſioned by the violent and conſtrained force of the muſcular action, which yet is no real part of the diſtemper, but only an effect of it, and always goes off gradually as the other ſymptoms abate.

Some have a high opinion of Quickſilver for broken-winded Horſes, and I have myſelf given it with good ſucceſs to wheeſing, thick-winded Horſes of a very ſizy Blood, that have been greatly relieved with it. But in a dry Cough, or a Broken-Wind, it has not the ſame ſucceſs: I have indeed known ſome of theſe helped by it, where there were concomitant ſymptoms of a humorous Aſthma, but eaſily relapſed upon the diſuſe of it; ſo that it is both uncertain, and

Quickſilver ſometimes helpful to Wheeſings but not to broken-winded Horſes.

in obſtinate caſes, by the long continued uſe of it, ſomewhat expenſive. Neither is it altogether ſafe, as the horizontal poſition of a Horſe may throw a greater quantity of the mercury into his Blood than is conſiſtent with the end propoſed by it, ſo as to produce very miſchievous effects. And I am the more ſatisfy'd in this from what I have ſeen ſeveral times in Horſes, from the repetition of mercurial medicines in the Farcy, and other leprous diſtempers.

The effects of graſs upon broken-winded Horſes.

I ſhall conclude what I have further to ſay on this ſubject, with ſome obſervations concerning the uſe of graſs, which indeed gives great relief to broken-winded Horſes while they continue abroad, not only becauſe they are always in the open free air, and ranging at pleaſure about the fields, but becauſe their diet is alſo both ſoft and cooling, and paſſes more eaſily through them than hard meat, beſides that graſs does not ſo much excite them to drink; ſo that thoſe who have conveniencies to keep ſuch Horſes always abroad, and only take them up when they have occaſion to uſe them, and after that turn them out again directly, by that means preſerve them tolerably eaſy, and they will continue under this management to do good ſervice many years. But ſuch as ſend Horſes to graſs merely to cure them of a Broken Wind, will find themſelves greatly diſappointed, eſpecially if they remain abroad after the ſpring graſs; for as ſoon as theſe are brought back to ſtand in the ſtable, they are for the moſt part ſoon blown up again, being deprived of the air and diet they had at graſs, and become gene-

rally much more oppreſſed and ſhort-breath'd than before. Inſtances of that kind are frequent, as alſo of Horſes that have been ſent to graſs to cure an obſtinate cough, and have returned from thence compleatly broken-winded, eſpecially where they have been turn'd into a ſucculent rich paſture, and have grown fat, and had their Bellies always full; and the oftner ſuch Horſes are turn'd out, the worſe they always return; and therefore thoſe who have not the conveniency of graſs near their Houſes, will find it more for their intereſt to keep ſuch Horſes always at home, under ſome proper and right management, eſpecially if they are young, and otherwiſe worth the care and expence that may be neceſſary to preſerve them; and if a cool open diet ſhould be judg'd wanting, they may be fed a month or ſix weeks in the ſpring with green barley, tares, or any other kind of herbage fit for ſoiling, eſpecially while it is young and full of juice, for if it happens to be old and tenacious, it will be little better than their own dirty litter, and more likely to help on a Broken Wind than to cure it.

Of a CONSUMPTION.

THAT Horſes are ſubject to Conſumptions and waſting Diſorders, muſt be manifeſt to all who have had any tolerable acquaintance with their diſeaſes, tho' few have been able to diſtinguiſh a true Conſumption from an obſtinate Cold, or other diſorders of the breaſt; and therefore I ſhall endeavour to ſet this matter in

Horſes ſubject to Conſumptions and waſting Diſeaſes.

a clearer light, than what has hitherto been done in Books of Farriery.

The cauſe. The cauſe of a Conſumption, is frequently from colds that have never been thoroughly cured, but have left ſome taint upon the Lungs, or ſome other of the principal *Viſcera*, eſpecially of the parts contained within the Cheſt, ſometimes from violent inward ſtrains, in working a Horſe beyond his ſtrength, or when he has a Cold upon him; travelling a Horſe beyond his ſtrength; riding long journeys without allowing ſufficient food, or proper times of bating and reſt upon the road; riding in the night in damp and wet weather, and from other ſuch like errors; and ſometimes conſumptions proceed from weakneſs or other faults in the conſtitution; ſometimes from Pleuriſies, Surfeits, or long continued ſickneſs of any kind.

Hot Horſes the moſt liable to Conſumptions. Fiery hot Horſes are the moſt ſubject to Conſumptions, being for the moſt part naturally weak and waſhy, and of a hectick diſpoſition. Theſe generally move with much heat and vigor for a ſpurt; but this ſoon abates, and if they happen to be work'd at any time more than ordinary, they loſe their appetite, they ſtale and dung often, for the moſt part loſe their Fleſh, and look faint and jaded; a hectick fever often attends, ſo that they feel all over hot, tho' not to ſuch a degree as in inflammatory and other fevers; but theſe ſymptoms generally wear off with two or three days reſt, and their appetite to food will alſo return, but are apt to relapſe as ſoon as they are put upon freſh exerciſe; and tho' they are never ſo much indulg'd with reſt

and

and food, they ſeldom carry a Belly, and but little Fleſh.

The ſigns of a Conſumption in a Horſe.

When a Conſumption proceeds from any defect in the Lungs, or principal *Viſcera*, their Eyes look dull, and a little moiſt, their ears and Feet are for the moſt part hot. They have commonly a ſharp Cough by fits, and frequently with a groaning, and ſneeze very much; they have an uneaſineſs and quick motion in their Flanks; they often gleet at the Noſe, and ſome throw out a yellowiſh curdled matter. They have but little appetite to food, eſpecially to hay, but will eat their corn, and are for the moſt part hot after it. Sometimes theſe ſymptoms abate and give hopes of recovery, but the leaſt over-exerciſe, or error in feeding, brings them to their old paſs. Some look ſleek and ſmooth, tho' their Fleſh be waſting, others have rough and ſtaring Coats, and appear alſo to be ſurfeited; but theſe different appearances are uſually owing to the different cauſes from whence the diſtemper has taken its origin.

The prognoſticks.

When a Horſe that has any of the above mentioned ſymptoms retains a tolerable appetite to food, holds out a long while, without any great abatement of his ſtrength, or loſs of fleſh, it is always a good ſign; on the contrary, when he continues loſing his fleſh and vigor, it is a ſign of decay, even tho' he retains a tolerable appetite; and any ſuch Horſe will ſeldom recover. When a Horſe runs a yellowiſh gleet from his Noſe, or curdled matter, it always proves mortal, and ſhews the Lungs to be waſting, but if the matter be white, and well di-

geſted, and at times abates, with a gleet of clear water, it is a promiſing ſign, eſpecially if the Horſe be young; but even where the beſt ſymptoms appear, Conſumptions of all kinds are dangerous and uncertain, and every accident or error expoſes conſumptive Horſes to relapſes, becauſe the foundation of his decays is often owing to natural weakneſs.

The cure. As to the cure of Conſumptions, one of the principal things is bleeding, which ſhould be ſmall in quantity, but often, eſpecially in the beginning, before a Horſe loſes too much of his Fleſh; this helps to abate the hectick Fever, which uſually attends Conſumptions, and is a relief to the diſorders of the Lungs. A pint at once, or a pint and a half from ſome Horſes is ſufficient, which may be repeated as often as they appear to be more than ordinarily oppreſſed in breathing. All thoſe things that are proper in Colds, are profitable here alſo. The following Balls will likewiſe do good ſervice, if the Horſe be young.

Take Conſerve of Red Roſes, one ounce; Lucatellus Balſam, half an ounce; Spermacœti rub'd in a mortar, and Sal Prunella, of each two drams; Syrup of Corn Poppies, what is ſufficient to make it into a ball, to be rolled in Liquorice powder, or Wheat Flower.

Theſe Balls may be given one every morning for a week, and if they be found to do ſervice, may be continued during pleaſure, till the Horſe recovers his uſual vigor, and begins to gather ſtrength. A quart of the pectoral infuſion re-

recommended for Colds, may alſo be adminiſter'd after each ball made warm, diſſolving in it an ounce of Gum Arabick, or Gum Tragacanth; but if the Horſe ſcowers, or runs at his Noſe, ſo as to induce weakneſs, the following infuſion may be uſed.

Take Ground Ivy and Horehound, of each an handful; Red Roſe Leaves, half an handful; freſh Linſeed, and Liquorice Root ſliced, or Juice of Liquorice, of each half an ounce; Saffron, one dram; Gum Tragacanth, an ounce; infuſe them in a quart of boiling water, letting the infuſion ſtand covered till cold.

This may be made milk-warm, and given every morning after the Ball with the uſual precautions, that is, faſting two hours before, and two hours after; allowing him not above a quartern of ſcalded bran, for when ſcalded bran is often given, and in great quantities, it hurts a Horſe by relaxing too much, and is greatly injurious in all habitual weakneſſes. His oats ſhould be the hardeſt and ſweeteſt that can be got, and his feeds alſo ſmall, that he may not be cloy'd. His hay ſhould alſo be the fineſt, and the duſt well ſhook out of it, and given in ſmall portions, that he may digeſt it eaſily. But nothing contributes more to the cure of a Conſumption than air and exerciſe, tho' any exceſs in the latter is dangerous; and therefore a weak conſumptive Horſe, ſhould only be led, or rode by a perſon of a light weight, and if ſhort-breath'd, ſhould only be walk'd; he ſhould be

Air and moderate exerciſe abſolutely neceſſary for conſumptive and decaying Horſes.

continued in the air, as much as poſſible upon ſome dry common, or other place where the air is good, which is the moſt likely way to bring him to his ſtomach, and conſequently to his ſtrength, and if he mends by this management, there may be ſome hopes of his recovery, provided he be young; but if he be full-aged or old, or if he continues ſtill weak and faint, runs a viſcid gleet from his Noſe, has a fullneſs of the Glands under his Jaws, coughs much and waſtes in his Fleſh, and grows weak, with a ſtinking breath, it will not be worth while to beſtow any labour or expence to ſave him.

I have ſeen ſome young Horſes continue in this conſumptive way for ſeven or eight months, with a great deal of care and good nurſing, and at ſome intervals, give the owners hopes of recovery, but at laſt have died waſted and rotten; I have ſeen others go off in a much ſhorter time, and not ſo much decay'd; and I have known ſome recover that have run at the Noſe for two or three years together; but then this running has abated very much at times, the matter was always white and well digeſted, and when that ceaſed at any time, there was generally a gleet of clear or whitiſh water. Theſe Horſes always retained their appetite to food, and did not loſe their Fleſh, but would go through their buſineſs tolerably well, with good uſage, though if they were put to it a little more than ordinary, they were the worſe for it; and thoſe who have had much practice this way, may obſerve, that theſe Horſes ſeldom recover perfectly, till they are about ſeven or eight

years

years old, then their Snottineſs goes off, and ſome of them after that grow hardy and uſeful.

There is another kind of Snottineſs, which ſometimes turns to a Rot, and happens when the Strangles have never come to maturity, or have been opened before the Impoſthume was ripe; they generally have a profuſe running at both Noſtrils; and when this continues, the Horſe grows extremely weak, loſes his Fleſh, and at laſt it affects his Lungs, and brings him into a Conſumption; but this is a curable caſe, and when it proves otherwiſe, it is generally owing to neglect or ignorance; but the reader may conſult what has been ſaid concerning the Strangles, where this ſymptom is particularly treated of.

As for thoſe Horſes that are of hot fiery tempers, and ſeem naturally diſpoſed to hectick and conſumptive Fevers, I have often obſerved that few of them are of any great value; yet if any ſuch happens to excel in his goings, the beſt way to preſerve him, is to feed him often in ſmall portions, as has been already adviſed, not to over-work him, nor to ſuffer him to carry too great a weight. The ſpring graſs is alſo good for ſuch Horſes, houſing them at night, while the weather is cold; by ſuch uſage ſome of theſe have had their conſtitutions greatly mended, and become ſerviceable.

An Atrophy is another kind of Conſumption, to which Horſes are ſometimes ſubject, where a Horſe has little or no Cough, no running at at the Noſe, nor ſcarce any ſymptoms of a hectick Fever, eats his meat tolerably well, and yet

yet continually waſtes in his Fleſh, and grows at laſt very much hide-bound: this is a dangerous malady, and, for the moſt part, proceeds from a ſurfeit or hard uſage, and ſometimes ends in the Farcy or Glanders. Several gentlemen have been at ſome pains and expence, by trying various experiments, for curing favourite Horſes that have been declining in this manner, though without effect; for I have obſerved, in many ſuch caſes, the Glands of the Meſentery, and other lymphatick Glands, very much enlarged above their natural ſize; and as many of the Meſenterick Glands are chiefly ſituated among the Lacteal Veſſels, ſo when theſe are ſwoln, and grown hard and ſchirrous, they are apt to hinder the Chile and Lympha from mixing with the Blood, which deprives a Horſe of his proper nouriſhment; and therefore nothing can produce a cure in this caſe, but what is of ſufficient efficacy to force through the obſtructions of the Glands; and this muſt be done ſpeedily or not at all.

Therefore, before a Horſe is too far waſted, give him two drams of Calomel in any of the common horſe-balls, in the morning before meat or water, letting him faſt two or three hours after it: his food muſt be ſcalded bran and the ſweeteſt hay, while he is under this courſe; he muſt have no cold water, nor ſuffered to be wet. The day after this doſe of Calomel let him have a mild purge, for a Horſe in this ſtate will not well bear thoſe that are ſtrong, and therefore I would adviſe the following:

Take

Take the fineſt Succotrine Aloes, ten drams; freſh Jallap in powder, and Saffron, of each a dram; grated Ginger, one dram; Salt of Tartar, half a dram; Syrup of Buckthorn, what is ſufficient to make it into a ball.

The mercurial ball and purge may be repeated three times, allowing a week between each.

Take Native Cinabar, or Cinabar of Antimony, one pound; Gum Guiacum, the ſame quantity; make them into fine powder, and mix them well together; give the Horſe an ounce twice a day, wetting his feeds.

This may be done in the intervals between the purges, and continued afterwards till he recovers and begins to gather ſtrength, and then air and exerciſe may perfect the cure. I have known ſome ſuch Horſes cured with the ſpring graſs, when the diſtemper has not been of a long ſtanding. The ſalt marſhes are the beſt, eſpecially thoſe where the ſoil is the moſt open and ſoon dry; but if a Horſe has been long in this declining way, and the diſtemper fixed and obſtinate, there is danger of the Glanders, by his feeding continually with his head downwards, ſometimes the Farcy; and if he eſcape theſe, he will be apt to turn dropſical upon his being taken up; but the reader may conſult what I have written concerning hide-bound Horſes.

CHAP.

CHAP. VI.

Of the Diſeaſes of the STOMACH.

I HAVE often obſerved, that Horſes are liable to diſtempers of the Stomach, which bear an affinity to thoſe of the human body, and proceed from the ſame cauſes, and are often attended with the like effects. In fevers and all inflammatory diſtempers, Horſes are greatly affected in their Stomachs, and loath all manner of food. The ſame will happen in extreme pain, whether inward or outward; the reaſon of which has been accounted for, from the mechaniſm of the Stomach, and its ſympathy with all the other parts of the Body. I ſhall therefore proceed to thoſe diſorders that are more peculiar to the Stomch itſelf, without the participation of any other concomitant diſtemper, which may be reduced to theſe two, *viz.* the *want of appetite* and a *voracious appetite*.

Of the Want of APPETITE.

BY the want of Appetite we do not here ſuppoſe a Horſe to be totally off his Stomach, as in Fevers, and in caſes of exceſſive pain, but only when a Horſe feeds poorly, and is apt to mangle his hay or leave it in the rack; and this frequently happens to Horſes that have too much corn given them, which abates their appetite to hay; ſome Horſes are alſo nice and dainty, but will eat tolerably, when their hay is picked,

and

and free from duſt, eſpecially when it is full of the herb and well got; but without ſuch qualities in the hay, will eat but little. There are others that will eat tolerably well, when they ſtand much in the ſtable, and do but little buſineſs, but loſe their ſtomach whenever they come to be worked a little more than ordinary; and ſome of theſe may be obſerved to feed little for ſeveral days, after one day's hard riding. However, we are not to reckon any Horſe a poor feeder from the meaſure of his food, for we ſee ſome Horſes that are ſmall eaters, and yet go through a great deal of fatigue and exerciſe, without much diminution of their Fleſh, or any great alteration in their appetite; neither are they more choice than others in what they eat: therefore theſe Horſes can hardly be reckoned bad or poor feeders, but little eaters; and any attempt to make them eat better would perhaps do them more harm than good.

The uſual cauſes of the want of appetite.

But when a Horſe feeds poorly, and does not gather much Fleſh; when his dung is habitually ſoft, and of a pale colour, it is an evident ſign of a relaxed conſtitution, wherein the weakneſs of the Stomach and Guts may have a very great ſhare. This habitual weakneſs may either be natural and hereditary, or may be cauſed by ſome previous ill management, ſuch as too much ſcalded bran, or too much hot meat of any kind, which relaxes the tone of the Stomach and Guts, and in the end produces a weak digeſtion, and conſequently the loſs of appetite. I have known ſome of theſe kind of Horſes of little uſe, till they have been very near full-aged,

yet

yet after this turned out good ſerviceable Horſes,
The cure. and do a great deal of buſineſs. The beſt method to harden and recover ſuch Horſes, is to give them much gentle exerciſe in the open air, eſpecially in dry weather; never to load their Stomachs with large feeds, and keep them, as much as poſſible, to a dry diet, indulging them now and then with a handful of beans among their oats; but if the caſe be ſo, that the Horſe grows weak, and requires the help of phyſick, I ſhould adviſe to begin with ſome few laxative purges, as the following:

A proper purge for a Horſe that feeds poorly. Take Succotrine Aloes, ſix drams; Rhubarb in fine powder, two drams; Saffron dry'd and powdered, one dram; make it into a ſtiff Ball, with a ſufficient quantity of Syrup of Roſes, and add two drams of the Elixir proprietatis, prepared with the Oil of Sulphur by the bell.

This purge will work very gently, and bring the Horſe to a better appetite, and ſtrengthen his digeſtion. It may be repeated once a week, or once in ten days; and after the operation of each purge

Take a large handful of the raſpings or ſhavings of Guiacum, Pomegranate Bark, and Balauſtines bruiſed, of each an ounce; Gallangals, and Liquorice Root ſliced, of each half an ounce: let theſe be boiled in two quarts of ſmiths forge-water; to three pints, and while it is warm, infuſe in the decoction

two

two drams of Saffron, and half an ounce of Diaſcordium.

Let this be divided into two drinks, and give one after the purge has done working, and the other after two days intermiſſion; in cold weather the drinks ſhould be warmed before they are adminiſtered; the ſame may be complied with after the laſt purge, and repeated as often as may be neceſſary, continuing to give the Horſe conſtant exerciſe in the open free air; and this will be the likelieſt method to ſtrengthen ſuch Horſes as are of weak relaxed conſtitutions.

The cure when the want of appetite has been owing to over-feeding.

But where ſuch a habit is only contracted by too much feeding, eſpecially on ſoft ſcalded diet, which is often the caſe of young Horſes kept up for ſale; the beſt way is to bleed and purge ſuch Horſes, and at the ſame time, to rowel them on the Belly; for this ſort of feeding eaſily expoſes Horſes to be lax that have no natural diſpoſition to it; for when they grow ſuddenly fat by ſuch management, the ſecretions from the Guts becomes greaſy, which always cauſes weakneſs and relaxation in them, and often forms a proper Nidus for the breeding of vermin; all which may be eaſily remedied, by purging in the firſt place, and afterwards by proper exerciſe, and a clean diet.

When the want of appetite proceeds from a hot fiery diſpoſition,

As for thoſe Horſes that are of a hot fiery diſpoſition, and loſe their appetites with their heat and fretting, it is a caſe that cannot eaſily be remedied, becauſe of the natural inflammatory diſpoſition of their Blood; the only method is to

it is hard to be cured.

to keep them to a cool diet, while they are young, and, in country places, let them run abroad, eſpecially where they have ſtables and warm ranges, to keep them from the inclemency of the weather in winter, for theſe ſort of Horſes are always tender, being for the moſt part extremely thin-ſkinned, and their Blood of a thin texture and eaſily ſet on motion; and for the ſame reaſon, the beſt way, in the ſummer, is to bring them up in the day-time, and only let them run abroad in the night, they being more hunted with the flies than any other, which keeps them continually upon the fret, and hinders them from thriving. When ſuch Horſes live till they are full-aged, their heat and fieryneſs often abates, ſo that they grow more uſeful, but while they are young, they are more ſubject to inward abceſſes, and impoſtumations, than Horſes of a cooler temperament; and theſe often kill them ſuddenly, or bring them into lingering conſumptive maladies, which, in ſome meaſure, may be prevented by the method herein laid down.

Of a Voracious Appetite, and of Foul Feeders.

A voracious appetite in a Horſe deſcribed.

IF voracious or foul-feeding is not altogether to be accounted a diſeaſe, yet it may be the cauſe of various maladies, and is often the effect of ſome latent diſtemper, as vermin, which have a quite different effect on ſome Horſes to what they have on others; for as Horſes of a lax habit of body often loſe their appetites by worms, and are frequently griped and ſickly in their

their Bowels, ſo Horſes of ſtrong rigid conſtitutions, that can bear the irritation thoſe animals make in their inteſtines, are often voracious in their appetites, and are continually craving after food.

Foul feeders differ in ſome things from thoſe that have voracious appetites, for as theſe crave only after their common food, and can hardly ever be ſatisfied, thoſe on the other hand, *viz.* foul feeders, will leave their hay to eat their litter, and ſeem to like it the better when it is well ſauced with their own dung and urine; and therefore they may be properly ſaid to have a vitiated or depraved appetite. Tho' this does not always proceed from a voracious appetite, yet the firſt is often productive of the latter, and may probably be occaſioned by enlarging the capacity of the Stomach and Inteſtines to ſuch a degree, that nothing will ſatisfy their cravings but what has weight and ſolidity; for the ſame kind of Horſes will eat mold and wet clay, or any kind of foul naſty weeds out of the ditches, and in the ſtable will eat ſtinking muſty hay, which the generality of Horſes will refuſe.

Foul feeders differ in ſome reſpects from thoſe Horſes that have voracious appetites.

There are others of depraved appetites, that are neither foul nor voracious feeders, ſuch as we often obſerve eat dry lome or mud out of the walls, which perhaps denotes ſome vitiated juices in their Stomachs; and this alſo is frequently owing to vermin, or at leaſt to a bad digeſtion, tho' perhaps not to any imbecility in their conſtitutions; for tho' theſe Horſes have a longing after thoſe extraneous things, yet their appetites at the ſame time ſeldom fail; but as

Some Horſes have depraved appetites.

this is often owing to full feeding, with the want of ſufficient exerciſe, ſo we often ſee them recover and quite loſe that vitiated taſte, when they come to ride a journey or go upon any other conſtant exerciſe.

The cure. The beſt method in all theſe caſes of a vitiated or depraved appetite, is to begin with purging, and to diſſolve chalk in their water, and afterwards to give them good exerciſe. The ſame method may be complied with to thoſe that feed voraciouſly. To theſe the following draught may alſo be given, to blunt their appetites.

Take a large handful of the Roots of Marſhmallows, Comin Seeds, and Fœnugreek Seeds, of each an ounce; Liquorice Roots ſliced, half an ounce; boil in three pints of water till the Roots are ſoft and ſlimy, then pour off the decoction, and diſſolve in it an ounce of Gum Arabick, and add four ounces of Linſeed Oil.

Let the Horſe have four hornfuls of this every morning faſting, till his appetite abates. If the Horſe be lean, which many voracious feeders are, he will gather more Fleſh under this management, and as his Fleſh increaſes his appetite will abate.

Foul feeders, how they ought to be managed. As to foul feeders, many of theſe begin with voraciouſneſs, and when they come to be ſtinted, fall on eating their litter to fill their Stomachs, and in time take a great liking to it; and it is obſervable that many of the Horſes that go broken-winded have this evil faculty; and therefore I ſhould adviſe any one who has a foul feeding

ing Horſe, to keep his ſtall as clean as poſſible, to let no wet dirty litter lie under him, nor to put his litter under the manger, but to beſtow it on ſome other Horſe, otherwiſe they will paw it out and feed upon it greedily; but clean ſtraw that has not been ſoaked with horſe-piſs and filth, will never hurt any Horſe; for tho' there is no harm in the urine, yet when the ſtraw has been ſoaked in it with the dung, it often turns into a wad, or like a ſpunge in their Bowels, and cauſes great diſorders. But when their wet litter is taken away every morning, it may be the means to make them leave off that ill habit.

CHAP. VII.

Of the Diſeaſes of the Lower Belly.

THE diſeaſes of the Lower Belly, often prove fatal to Horſes, there being many circumſtances attending them when they happen to be violent, as Fevers, Convulſions, inward Mortifications, *viz.* which renders them difficult to perſons of ſuch mean education as the farriers generally are. For theſe maladies being often ſituated in parts that give no ſenſible demonſtration of ſickneſs or diſorder, as the diſtempers of the Head, which are manifeſt from drowſineſs, heavineſs, ſwelling and inflammation of the Eyes, and other palpable ſigns; nor as thoſe of the Cheſt or Middle Venter, where the Lungs are for the moſt part affected with a Cough and ſhortneſs of Breath. But we find ſeveral parts of the Lower Belly diſeaſed, without any great

ſigns of pain or ſickneſs, or even ſo much as loſs of appetite, ſuch as happen ſometimes in diſtempers of the Spleen, Liver and Kidneys, eſpecially in diſeaſes of the Meſentery, to which not a few Horſes are ſubject, whereby they grow miſerably lean and hide-bound, ſwell in their Limbs, and ſometimes their Bellies, and at laſt fall into an incurable Decay; ſo that it is not eaſy to find out the ſeat of thoſe maladies, but by long experience and a competent knowledge of the animal œconomy, and the Diſeaſes peculiar to Horſes.

The maladies that have their chief ſeat in the Abdomen, or Lower Belly, may be properly reduced to theſe, *viz.* The Cholick and Gripes of all Kinds, with a Strangury, or Stoppage of urine; the diſeaſes of the Kidneys, and Meſentery; the Yellows, and Jaundice, and other diſtempers of the Liver; Coſtiveneſs, Scouring and Diarrhœa, Worms, and ſometimes a Diabetes. In treating of which, I ſhall proceed in the beſt method I can, to render them eaſily underſtood, ſo as they may be cured with more certainty than they have been hitherto by the practitioners in Farriery.

Of the Cholick and Gripes.

Crib-biters moſt ſubject to the Gripes.

THERE is ſcarce any diſtemper more uſual among Horſes than the Gripes, and ſome Horſes are more ſubject to theſe diſorders than others, particularly thoſe addicted to Crib-biting, who by ſucking in the air, often fill their Stomachs and Guts to ſuch a degree with wind and

and vapour, that they ſwell prodigiouſly, and look as if they were ready to burſt, till ſome means are uſed to give them vent.

The ſigns of the Gripes.

I have alreadydeſcribed the manner of Cribbing, in diſcourſing of the defects of Horſes, and what I have imagined to be the cauſe of it; and therefore I ſhall haſten to the cure. The ſigns in Crib-bitters of the Cholick being in common with other Cholick pains, ſuch as often lying down, and riſing ſuddenly with a ſpring, occaſioned by the violence of the pain; a Horſe in this condition rolls about and tumbles, and often turns upon his Back. This ſymptom generally proceeds from a Strangury or Stoppage of urine, which almoſt always attends this ſort of Cholick, and perhaps cauſes pain and fulneſs, or inflammation of the Kidneys, with a diſtention of the aſcending trunk of the *Cava*, by which poſture of lying on his Back, he may receive ſome interval of eaſe. The Stoppage of urine may alſo be increaſed from a plenitude of dung in the ſtreight Gut; for Horſes often find ſudden relief from raking, and the dung drawn out by the hand; ſo that by removing the preſſure upon the Neck of the Bladder, a vent is given to the Urine, which, while it is detained, cauſes exquiſite pain, excites Convulſions and violent ſweats, that are uſually ſucceeded with cold damps, which ſometimes prove dangerous.

Theſe ſigns are common in the Gripes and in all Cholicks, to which Horſes are any ways ſubject. As to the diagnoſticks, they will appear ſufficiently plain in the proceſs of the cure, and therefore to Horſes that are given to Crib-

biting, where the diſtemper proceeds chiefly from Wind and Flatulency, attended for the moſt part with Coſtiveneſs, and almoſt always with a Strangury; the firſt intention in this caſe is to empty the ſtreight Gut with a ſmall hand, being firſt anointed with oil or hogs-lard, which ſometimes alone makes way for the Wind that was pent up, to vent itſelf, whereby the Horſe alſo ſtales and gets eaſe.

The uſe of bleeding the Mouth in the Gripes.

Our farriers and grooms uſually ſtrike a fleam into the bars of a Horſe's Mouth when they perceive him to be griped, which I think is of uſe, at leaſt, I never knew any hurtful accident happen from thence; for though ſometimes Horſes will bleed a great deal, from the ſmall arteries diſperſed upon the bars of the Mouth, when they lie ſuperficial, yet this is eaſily remedied, and ſeldom needs any other means to ſtop it than dry bran, or to waſh the Horſe's Mouth ſeveral times with ſharp vinegar and ſpirit of vitriol, if it prove more than ordinary violent. The Horſe generally champs and ſwallows moſt of the Blood, which being in ſome degree repleniſhed with vital ſpirits, may therefore have virtues of which we may be ignorant; at leaſt of the many inſtances I have known of this kind, I never found any hurt by it, or that it was any hindrance to the cure.

Riding Horſes in the Gripes not always ſafe.

It is uſual in all caſes of the Gripes to ride the Horſe a good full trot, partly to keep him from lying down and rolling, and partly to warm him thoroughly, and cauſe him to dung and ſtale. Indeed, when a Horſe is blown up with Wind, with a Stoppage of dung and urine, a little

little ſtirring may no doubt be very proper. But when a Horſe in this condition is hurried along till he ſweats violently, and continued in that manner till he is worn out and jaded, which is often done, it always proves injurious, and ſometimes fatal. The exceſs of pain in the Gripes, for the moſt part raiſes a ſymptomatick Fever, whereby the Blood is rarified and greatly agitated, and the veſſels filled and dilated, eſpecially thoſe of the Lungs, and alſo thoſe of the Brain, which is eaſily ſeen by the redneſs, inflammation and fixedneſs of the Eyes, and in the Lungs by the ſhortneſs of Breath; and when to this is joined the fulneſs and diſtention of the Belly, and a ſuppreſſion of Urine, all theſe things render exerciſe, unleſs it be extremely moderate, very dangerous, and may cauſe the Staggers, Pleuretick ſymptoms, and ſometimes Burſtenneſs. Two inſtances of which I have known in old Horſes, which could proceed from no other cauſe but riding them beyond their ability, by which they fell down, and by their great weight and incapacity to help themſelves, were both burſten. One had a rent in his Stomach ſeveral inches long, at which I was ſomewhat ſurpriſed, and could account for it no other way than from the texture and mechaniſm of a Horſe's Stomach, which is far thinner than any creature I know of the ſame ſize and bulk from the great age of the Horſe, whereby the Fibres of his Stomach were grown rigid, dry, and criſpy, which rendered them the more fragible, and conſequently the more eaſily broke aſunder. The other was alſo old,

Inſtances of burſtenneſs in the Gripes.

and had the Gut Colon, which is very thin, burſt, and part of his excrements diſcharged into the cavity of his Lower Belly. Which inſtances have always been a ſufficient caution to me not to ſuffer Horſes in the Gripes to be haraſſed beyond their ability; and which is a common method, to be dragged about till they are jaded. And as this is a matter of ſome conſequence, whereby Horſes are often brought ſuddenly to their end, I ſhall therefore lay down the method I have always found the moſt ſucceſsful to prevent ſuch accidents.

Cautions to prevent dangerous accidents, when Horſes are griped.

When a Horſe is ſeized with the Gripes, the firſt intention is generally to prick him in the Mouth with a fleam or horn, as above mentioned. Afterwards let the ſtreight Gut be examined, and if he happens to have any quantity of dung lodged in it, let him be raked and emptied; let the ſtate of the Horſe be alſo enquired into, and if the Gripes proceed from Crib-biting, the following ball will ſeldom fail of giving him relief.

The propereſt method to manage Horſes in the Gripes.

Take Straſburg or common Turpentine, and Juniper Berries, pounded, of each half an ounce; Sal Prunellæ, an ounce; Spermacœti, two drams; Chemical Oil of Juniper, one dram; Salt of Tartar or Salt of Wormwood, two drams; make into a ball, with a ſufficient quantity of Syrup of Marſh-mallows, to be given immediately.

If the Horſe does not break wind backwards, and ſtale plentifully, he will not be eaſy, and therefore another ball may be repeated about

two

two hours after the firſt; and if he roll and tumble, and appears to be full of pain, add to it a ſcruple of ſalt of amber, and repeat it again in about two hours more, and the Horſe will void both dung and urine; and by that means get clear of his diſorder.

The common methods often hurtful.

This is preferable to the common method of adminiſtring Oil of Turpentine, or Geneva and Pepper, Beef Brine, and ſuch other things commonly uſed in the Gripes, which often heat and inflame the Blood, excite feveriſh ſymptoms, and cauſe too great a force and irritation on the Neck of the Bladder, which frequently proves hurtful; whereas the method I have here recommended, ſeldom or never fails. Theſe balls may either be thruſt down whole, or where there is difficulty in adminiſtring balls, may be diſſolved in a pint of warm ale, and given as a drench; they warm and comfort the Stomach and Bowels, and at the ſame time relax and cool the Urinary Paſſages; which is a very great benefit in all ſuch caſes, wherein they are ſo very efficacious, that very often one doſe makes a perfect cure.

The proper diet for Horſes in the Gripes, is ſcalded bran, and warm gruel, with the beſt hay that can be pick'd, after the pain is removed, for till then they will neither eat nor drink. I never chuſe to have them rid during the fit, more than a gentle trot or walk, but to have a place well litter'd with freſh ſtraw, where there is ſufficient room for them to roll and tumble; there ought alſo to be one or two perſons conſtantly to look after them while they are in pain,

to

to prevent their hurting themſelves, which they are apt to do, unleſs they are carefully attended.

The ſigns of recovery.

The firſt ſign of a Horſe's recovery, is when he lies quiet, without ſtarting or tumbling, gathers up his Legs, and ceaſes to laſh out, eſpecially if he continues an hour in that quiet poſture, we may conclude all the danger is over.

When the Gripes are complicated with inward Inflammation, how to be diſtinguiſhed.

This method is ſufficient in all common caſes, where Horſes are affected with the Cholick and Strangury. But the Gripes are often attended with ſymptoms that are obſtinate, as Inflammation of the Guts, and other internal parts, which not being rightly underſtood, frequently prove fatal, and even the moſt ſimple Cholick may, by ill management, acquire ſuch complications as may be dangerous. Many diſorders are alſo ſometimes taken for the Gripes, which are owing to other cauſes, as Inflammations in the Lungs, Inflammations of the Liver and Kidneys, or other parts within the Abdomen. When in the Liver, the Eyes and Mouth always look yellow, or of an orange colour, and Horſes will ſometimes, in this caſe, be inclined to the Staggers; when in the Lungs, they will become all of a ſudden ſhort-breath'd, and at firſt diſcover many ſymptoms of the Gripes; however, in this caſe a Horſe ſeldom lies down, but often gathers himſelf together, and makes motions as if he would, and when he chances at any time to lie down, he never lays his head, nor turns himſelf upon his Back to roll and tumble, but breathes exceſſively ſhort, and riſes ſuddenly, not being able to indure the preſſure and ſtricture upon his Lungs. When the Inflammation happens either

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in the Lungs, or in the Liver, the Horſe turns his Face round, and looks wiſhfully to the affected ſide, as in a violent Cholick, but then he both dungs and ſtales without any difficulty, and never offers to break wind, as grip'd Horſes always do; in which caſes bleeding plentifully is of great uſe, with cooling and balſamick medicines, as in pleuretick diſorders. If the Horſe looks yellow, ſo as to give ſuſpicion of an inflam'd Liver, he muſt be treated as in the Yellows.

Dry and humid, or moiſt Cholicks.

But a genuine Cholick proceeds chiefly from a diſtemperature of the Guts, and is always dangerous when theſe are inflam'd. That ſort which begins with a ſquirting, and ſome appearances of looſeneſs, is much more dangerous than that which is cauſed by coſtiveneſs, which may be eaſily remedy'd if taken in time, with emollient glyſters and other opening medicines; but the other for the moſt part takes its origin from the ſmall Guts, which inflames the Colon and Meſentery, and often ends in mortification. In this caſe, a Horſe generally throws out a little looſe dung, with a hot ſcalding water, attended with violent Gripings, and often with a burning Fever. If a Diarrhœa, or continued purging follows upon this, it is uſually called the moiſt Gripes, and the Horſe for the moſt part does well, becauſe then nature caſts off what is offenſive to her; but if the purging be but little, and the water that iſſues from the Fundament appears of a blackiſh or reddiſh colour, and of a fœtid ſmell, it is a ſign of mortification. I

The latter ſometimes ends in Mortification of the Guts, &c.

have

have known Horſes ſeveral times relieved in this caſe, with the following cheap ball.

The cure of an inveterate Cholick.

Take Diapente, an ounce; Diaſcordium, half an ounce; Myrrh in powder, two drams, made into a ball; with two drams of unrectify'd Oil of Amber, roll'd in Liquorice Powder.

Let this be given as ſoon as poſſible, and repeated about four hours afterwards. If the Horſe recovers, it will be proper to give him two or three mild purges to prevent relapſes.

Purging after Cholicks uſeful.

To a Horſe of value the following method may be followed.

Take Rhubarb in Powder, half an ounce; Diapente, an ounce; Salt of Tartar, two drams; grated Ginger, and Oil of Juniper, of each one dram, make it into a ball, with a ſufficient quantity of Oil of Amber.

Let this be repeated once in two days, and every morning and night three or four hornfuls of the following decoction may be adminiſter'd.

Take Jeſuits Bark in groſs Powder, three ounces, boil it in water wherein hot iron has been quenched, or in clear forge water, from half a gallon to a quart, adding to it a pint of red wine.

When the firſt decoction has been all uſed, the Bark may be boiled a ſecond time, to draw out the remaining part of its virtue, and given as before; and if the Horſe continues in pain, and ſtill throws out a ſcalding fœtid water, a quart of

of the ſame decoction may be made uſe of for a glyſter, diſſolving in it two ounces of Turpentine, with the Yolks of two new-laid Eggs, adding a pint of Red Wine, and an ounce of Diaſcordium diſſolv'd in the warm decoction. This method will often ſucceed, when the Guts are diveſted of their Mucus, and excoriated; and where a mortification is threatned, half an ounce of Mel Ægyptiacum, and two ounces of Tincture of Myrrh may be added. This indeed I have never yet made trial of, but am pretty much perſuaded may be of uſe, to cleanſe away the foulneſs that attends eroſions in the Bowels.

Thus much I judged neceſſary concerning thoſe Frettings in the ſmall Guts, or in the Gut Colon, or Blind Gut, which ſometimes end in Gangrenes, and Mortifications, and may poſſibly proceed from punctures of thorns, or other things taken in with the food of Horſes; they almoſt always come ſuddenly, but when ſuch Ulcerations are the effect of a bad conſtitution, or long continued ſickneſs, there is ſeldom any hopes of a recovery.

The dry Gripes in what manner to be managed.

I ſhall now proceed to thoſe Cholicks that ariſe from Coſtiveneſs, or from drinking cold water when Horſes are hot, both which cauſe ſudden frettings in the Guts, which ſometimes proves dangerous. In the firſt of theſe caſes, *viz.* when the Gripes proceed from Coſtiveneſs, which may be known by his frequent, and often fruitleſs motions to dung, its blackneſs and hardneſs, the frequent and quick motions of his Tail, the high colour of his Urine, fulneſs, dulneſs, liſtleſſneſs, and other ſigns. This being plain

plain and apparent, may be eaſily remedied by emollient glyſters, and mild purgatives, as has been already mentioned. But as coſtiveneſs, when obſtinate, and of long continuance, ſometimes alſo produces ſymptoms of the Staggers, ſuch complications ſhould always be attended to, for which the reader may conſult what is ſaid under that head; where the cure of Coſtiveneſs is fully treated of, and the proper means to be followed after that ſymptom is removed.

The Gripes that ariſe upon drinking cold water when a Horſe is hot, ſeldom needs any other remedy than one or two warm cordial balls, made ſomewhat diuretick, and keeping the Horſe in conſtant motion for ſome time after they are given. One of the propereſt medicines for the purpoſe is this:

Take the ſeeds of Aniſe, Cumin, and Fennel, of each half an ounce; Caſtor, and Camphor, of each one dram; Pellitory of Spain, and Saffron, of each half a dram, make into a ball with Syrup of Marſh-mallows, adding forty or fifty drops of Oil of Juniper, or Oil of Anniſeeds.

But if other ſymptoms ſhould ariſe beſides Gripes, which are ſometimes cauſed by ill management, ſuch as heat, panting, dryneſs of the Mouth, and the ſeveral attendants of a fever, then recourſe muſt be had to plentiful bleeding and other evacuations, with pectorals and balſamicks, ſuch as have been directed already in Pleuriſies and Peripneumonies.

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In Horſes that die with Gripes, there is ſeldom any thing to be ſeen beſides Inflammation and Mortification in the Guts, or a tendency to Mortification; the Stomach, and the firſt of the ſmall Guts; are generally free from taint, and when the Lungs, or other principal Viſcera happen to be inflamed, the Inflammation is but ſmall, being only the conſequence of the fever, cauſed by the pain. But the ſmall Gut, that anſwers to the *Ileon* in men, is often black and criſped with the extreme heat, eſpecially when the ſeat of the diſtemper happens to be in that Gut, and when it is ſo, the Colon is, for the moſt part, alſo affected, and full of red and livid ſpots. In ſome, the ſeat or origin of the diſtemper ſeems to be in the Colon, eſpecially towards the lower end, and ſometimes the Valves or Purſes of the Colon will be diſplaced and intangled, which the farriers and collar-makers, who open dead Horſes, improperly call a twiſting of the Guts. I once ſaw a fine Horſe opened, that died with the Gripes, when, to the farrier's great ſurprize, no defect could be found, to cauſe his death; ſo that I deſired a more particular examination to be made, and in turning over the Purſes of the Colon, I diſcovered ſome black and livid ſpots upon the lower part of it; and the blind Gut, which lies next the Colon, was hid by the other Guts, extremely black and thickened, and its inſide, with part of the Streight Gut that leads to the Fundament, extremely rotten and mortified.

Remarks on Horſes that have died of the Cholick.

Theſe obſervations ſhew why ſuch diſtempers prove ſo ſuddenly mortal, from whatever cauſe they proceed,

proceed, whether from punctures of prickly herbs in their food, or from inward tumors, ariſing from a vitiated depraved Blood, which may lie hid a long time without any ſigns of diſorder, till they become inflamed. From hence alſo, we may diſcover the reaſon of that heat and burning we obſerve in the Fundament, with the iſſuing of blackiſh fœtid matter, which ſometimes comes from thence along with the dung, and is generally the forerunner of death.

Of WORMS.

SOME authors, eſpecially the *Italians*, who have taken their deſcriptions of diſeaſes chiefly from the writings of phyſicians, mention ſeveral kinds of vermin in the Bodies of Horſes, ſuch as are ſaid to be in the human body; but, by the ſtricteſt enquiry I could make, I never found more than three ſorts, *viz.* Bots, which many young Horſes are ſubject to in the ſpring; thoſe that reſemble earth-worms, and which by phyſicians are called, *Teretri* or *Rotundi*; thoſe that are about the ſize of the largeſt ſewing-needles, with flat heads. And whatever variety is obſervable in all theſe kinds, conſiſts chiefly in the difference of the ſize and colour, which are only things accidental: for the Bots that breed in the Stomachs of Horſes, and are ſometimes the cauſe of Convulſions, appear to be of the ſame kind with thoſe in the Streight Gut, being only ſomewhat larger, and of a more reddiſh colour, which ſeems only owing to this, that they are filled with a more florid Blood from

Horſes ſubject to three ſorts of Worms.

The Bots deſcribed.

from the Horſe's Stomach, being the ſame in ſhape and figure, both having little ſharp prickly feet along the ſides of their Bellies, like the feet of hog-lice, which, by their ſharpneſs, like the points of the fineſt needles, ſeem to be of uſe to faſten them to the part where they breed, and draw their nouriſhment, and to prevent their being looſened from their adheſions before they come to their maturity; for when they are ſqueezed and emptied, both appear the ſame, being no other than a very large maggot, made of circular rings, as all other maggots generally are.

The Earth-worms are of the ſame kind with thoſe we often ſee come from children that are groſs feeders, reſembling the common Earth-worms in many reſpects, only that they are ſharper at both ends, are more callous towards the middle, and do not ſo eaſily contract or dilate themſelves. In children, and in grown perſons too, they ſeldom exceed ſix inches in length; but I have ſeen them come from Horſes, larger than a man's finger, and about eighteen inches long, and ſome of them that I have ſlit open, full of eggs; theſe ſeldom hurt Horſes, but hinder them from thriving, till they are diſlodged.

The *Territes*, or Earth-worms.

The ſmall Worms like needles reſemble thoſe in the human body, called *Aſcarides*; ſome of them are white and ſome of an azure colour, with flatiſh heads. Theſe are very troubleſome and hard to be rooted out, and expoſe Horſes the moſt of all others to frequent Gripes, and other fretting uneaſy diſorders in their Guts.

The *Aſcarides*, or Needle-worms.

The cauſe of Worms in Horſes.

As to the cauſe of Worms in Horſes, it is probable, ſome conſtitutions may be more inclinable to breed Worms than others, from a groſs habit of body; ſometimes they are the effect of ſickneſs, eſpecially old Surfeits, whereby the juices being contaminated, eaſily putrify. But the moſt uſual cauſe of Worms is foul or high feeding, which breeds crudities and ſlimy indigeſted matter in the Stomach and Bowels (eſpecially Horſes that have been pampered for ſale) forming a proper *Nidus* to bring the eggs to maturity. Theſe eggs are ſuppoſed to be conveyed into their Stomachs with their food; and if it be true, what ſome authors affirm, that many ſickneſſes are owing to animalcula floating in the air, and that the eggs of theſe animalcula, being too minute to be perceived by the naked eye, may inſinuate themſelves imperceptibly into the minuteſt canals, in ſuch a manner, as to corrupt the whole maſs of Blood; how much more eaſily may we conceive in what manner the eggs of a larger ſpecies may be conveyed into the principal and chief canals of the animal body with the food, and produce thoſe diſorders we are here deſcribing.

The ſigns.

The ſigns of Worms in Horſes are various, according to their different kinds. The Bots, that many Horſes are troubled with in the beginning of ſummer, are always ſeen ſticking to the Streight Gut, and are often thruſt out with the dung, along with a yellowiſh coloured matter, like melted ſulphur; they are no ways dangerous there, but are apt to make a Horſe reſtleſs and uneaſy, and rub his breech againſt the poſts. The ſeaſon of their coming is uſually in

the months of May and June, after which they are ſeldom to be ſeen, and rarely continue in any one Horſe above a fortnight or three weeks. Thoſe that take their lodgments in the Stomach, are extreme dangerous in cauſing Convulſions, and are ſeldom diſcovered by any previous ſigns before they come to life, when they bring a Horſe into violent agonies; but the reader may have recourſe to what has been already ſaid of that kind of Convulſions which proceed from vermin, &c. The Earth-worms, for ſo I chuſe to call them, becauſe they reſemble that ſort moſt, give little diſturbance to a Horſe, and would hardly be diſcovered, unleſs they were ſeen now and then to come away with the Dung. Frequently Horſes void one or two, and no more; and ſometimes Horſes will void pretty large quantities of the young brood, not much larger than the *Aſcarides*, only of a red colour, and not white, as the *Aſcarides* generally are; they are moſt uſual in autumn, or the beginning of winter, though a Horſe ſhall now and then void one or two of theſe at other times of the year. But the *Aſcarides*, or ſmall Worms, are very troubleſome to Horſes, and breed at all times of the year, and often when one breed is deſtroyed another ſucceeds. Theſe are not mortal; but when a Horſe is peſtered with this ſort of vermin, though he will go through his buſineſs tolerably well, and ſometimes feed heartily, yet he always looks lean and jaded; his hair ſtares as if he was ſurfeited, and nothing he eats makes him thrive; he often ſtrikes his Hind-feet againſt his Belly, which ſhews where his grievance lies, and is ſometimes griped, but without

Bots common in the months of May and June, eſpecially among young Horſes.

The ſigns of the ſmall Worms, or *Aſcarides*.

the violent ſymptoms that attend a Cholick or Strangury, for he never rolls or tumbles, but only ſhews uneaſineſs, and generally lays himſelf down quietly on his Belly for a little while, and then gets up and falls a-feeding; but the ſureſt ſign is, when they void them with their dung.

The cure of Bots in the Streight Gut.

Now as to the cure. If a Horſe is troubled with Bots, he may be relieved without much expence or trouble, only by giving him a ſpoonful of Savin, cut very ſmall, once or twice every day, in oats or bran moiſtened, and if three or four cloves of chopped Garlick be mixed with the Savin, it will do better, for Garlick is alſo a great deterſive, attenuates viſcid matter, and keeps the Body open, which is of great ſervice in all theſe complaints. And moreover, Horſes that are troubled with Bots, ought afterwards to be purged with aloetick purges, before the weather grows too hot; and if they be kept to a clean diet after their purges, it will be a great chance if ever they are troubled with them any more. As the Bots generally happen about the graſs ſeaſon, I have obſerved theſe Horſes that are turned to graſs often get rid of them there, by the firſt fortnight's purging; and therefore thoſe that have the conveniency of a good paſture for their Horſes, need not be very ſollicitous about giving them medicines.

The Earth-worms, which the writers in phyſick call *Teretes* or *Rotundi*, are beſt conquered by aloetick purges, for they often come away in purging, when, till then, it has not been known that the Horſe was troubled with them; and it has

has been obſerved, after theſe have been voided, the Horſe has throve better, grown much more lively, more active, and more attentive to his buſineſs. There can ſcarce be a better purge to deſtroy vermin than the following, and whoever makes trial of it, will for the moſt part find it anſwer his expectation.

A proper purge to deſtroy vermin.

Take of fine Succotrine Aloes, ten drams; freſh Jallap, in powder, one dram; Areſtrochia Longa or Rotunda, *viz.* the long or round Birthwort, and of the cleareſt Myrrh, both in fine powder, of each two drams; make it into a ſtiff paſte, with a ſufficient quantity of Syrup of Buckthorn, if the Horſe be ſtrong and a good feeder; if not, with Syrup of Roſes, and add to it rectified Oil of Amber and Oil of Savin, of each one dram. Roll it into a ball with Liquorice Powder or Flour.

Some prefer the *Barbadoes* Aloes for Worms, thinking it the more efficacious becauſe of its rank ſmell. Its operation is very rough, and may be given to hackneys and other Horſes of ſmall value; but I never found it more efficacious for deſtroying Worms than the Succotrine, at the ſame time that it expoſes a Horſe more to Gripes and other dangerous diſorders, unleſs it be worked thoroughly off. The following is a cheap purge of this kind, and well corrected, *viz.*

Take *Barbadoes* or Plantation Aloes, one ounce; Salt of Tartar, two drams; freſh Ginger grated,

grated, a dram and a half; Oil of Amber, a middling ſpoonful.

Moſt of our common practitioners do nothing more than to work an ounce of coarſe Aloes into a Ball before a warm fire, and when they have dipped it in Oil, give it without any other preparation. But I have known ſome of our farriers boil a pound of coarſe Aloes in water, then ſtrain it through a piece of canvas, and ſo evaporate it over the fire, throwing away the coarſe part or reſidue that remains in the bag, and make their purges out of that which they think they have purified and refined. But this ſort of Aloes neither works ſo kindly or efficaciouſly as the other; however, it may be purified or corrected, and therefore ſhould never chuſe to give it to a Horſe that I ſet a value upon.

The *Aſcarides* or ſmall Worms ſometimes come away in great numbers with a purge, and ſome Horſes get clear of them with purges only; but this does not often happen, for the Horſes that breed *Aſcarides* above all others are ſubject to ſlime and wormy matter: the *Aſcarides* in the human body are thought to be ingendered in the Streight Gut near the Fundament, but in Horſes I never perceived any other than Bots adhere to that Gut. But theſe Worms in them ſeem to have their lodgment about the beginning of the ſmall Guts, near the Stomach, among the concocted aliment or chyle, both from their colour and the ſymptoms of the Gripes, and ſudden fits of ſickneſs theſe Horſes are often ſeized with, which ſometimes makes them

The *Aſcarides*, or ſmall worms, how they affect a Horſe.

them abruptly leave off their food, for a few minutes, and fall greedily to it again, as ſoon as the ſick fit is over. The Bots in a Horſe's Fundament are often ſeen ſticking near the *Sphincter Ani*, and are continually dropping off with the dung, or may be pulled away with the fingers, and while they are there make a continual titulation or itching near the *Sphincter Ani*, which may be eaſily perceived by all the geſtures and motions of the Horſe; but the others are ſeldom ſeen, but when a Horſe has had a purge given him, or when he falls into a natural purging, which thoſe Horſes are often ſubject to, and then they come away in very great numbers, with much ſlime and naſtineſs. The vermin in the Streight Gut ſeldom alters a Horſe's looks, but theſe not only make a Horſe grow lean and look ſurfeited, but in opening his Mouth, one may perceive a more than ordinary languid whiteneſs, and a ſickly ſmell, from the want of thoſe due ſupplies of blood and nouriſhment, which gives a livelineſs to the colour that is always perceivable in the Mouths of ſound vigorous Horſes; ſo that whatever be the primary cauſe, theſe Worms ſeem in a great meaſure to proceed from a vitiated appetite and a weak digeſtion, which renders them the more difficult to be removed; for which purpoſe recourſe muſt be firſt had to mercurials, and after theſe, ſuch things as are proper to ſtrengthen the Stomach, promote digeſtion, and give a better tone to the Solids.

Therefore to a Horſe that is ſubject to theſe ſmall white or azure-coloured Worms, the following method may be obſerved.

The cure of the *Aſcarides* and all other kinds of Worms andwormy matter in the Bowels of Horſes

Take of Calomel that has been often ſublimed and well prepared, two drams; Diapente, half an ounce; make it into a ball, with a ſufficient quantity of Conſerve of Wormwood, or of Rue, and give it in the morning, letting the Horſe be kept from meat and water four hours before and four hours after.

The next morning adminiſter one of the purges above deſcribed, taking great care to keep the horſe from wet, or from any thing that may expoſe him to catch cold. His purge may be worked off in the ſtable with warm water, which is much the ſafeſt way when mercurials are given. The Calomel ball and the purge may be repeated in ſix or eight days; and again in ſix or eight days more. Or the following mercurial purge may be given, which will be leſs troubleſome and no leſs efficacious.

Take Crude Quickſilver, two drams; Venice Turpentine, half an ounce. Rub the Quickſilver with the Turpentine in a mortar till no gliſtning appears; then add an ounce of Succotrine Aloes, in powder, and a dram of grated Ginger; make it up into a ball, with a ſufficient quantity of Syrup of Buckthorn, and about thirty or forty drops of the Chemical Oil of Savin.

Let one of theſe mercurial purges be given as the foregoing, *viz.* one in ſix or eight days, with

with all the ſame precautions. It will work mildly, and with little or no griping or ſickneſs.

Another mercurial purge proper to deſtroy Worms and wormy matter.

Take Diagridium, Ceruſe of Antimony, and Calomel, of each two drams; Succotrine Aloes, ſix drams; grated Ginger, one dram; make it into a ball, with a ſufficient quantity of Syrup of Roſes, and thirty or forty drops of Oil of Savin, Oil of Cloves, or Oil of Aniſeeds. To be given as the other.

When a Horſe has gone through a courſe of theſe mercurial purges, let the following drink be given two or three times a week, which may be continued as long as needful, *viz.* till the Horſe begins to thrive and look healthful.

Take Rue, Chamomile Flowers, and Horehound, of each a handful; Gallangals, bruiſed in a mortar, three drams; Liquorice Root, ſliced, two drams. Boil it in a quart or three pints of Forge-water five or ſix minutes, in a covered veſſel, and keep it covered till cold, then ſtrained through a piece of coarſe canvas, and give it in the morning upon an empty Stomach.

Powder of Tin greatly recommended for deſtroying of Worms.

Some have a great opinion of powder of Tin as an infallible cure for Worms. But it is very troubleſome to make, and perhaps not ſo infallible as ſome have imagined. This is prepared by melting down any quantity of Tin in a crucible, pouring it hot into a wooden bowl, and rolling it round till part of it is turned to a greyiſh

The manner of reducing it into powder.

greyiſh powder. Then melting down the remaining part, and rolling it again, continuing this operation till all that can be reduced to powder is obtained from it. This may be given to half an ounce or ſix drams.

Antimonial and other mineral preparations uſeful for the ſame purpoſe.

Moſt of the preparations of Antimony are efficacious for deſtroying Worms, Sulphur is alſo good in all ſuch caſes; and even crude Antimony in fine powder, given with equal parts of Sulphur often ſucceeds, *viz.* an ounce in the morning and another at night; Liver of Antimony, *Crocus Metallorum*, or *Stibium*, has alſo the ſame effect. The *Æthiop*'s Mineral, or the *Mercurius Alkaliſatus*, viz. two drams of the latter, or half an ounce of the former, made into a ball, with Conſerve of Roſes, or incorporated with a ſufficient quantity of any cordial ball, and given twice or three times a week, for a fortnight, are of great efficacy. Powders made of Cinabar or Cinabar of Antimony, with Gum Guiacum, as in the Farcy and obſtinate Surfeits, will effectually deſtroy Worms, after purging and other neceſſary evacuations, and be no hindrance to a Horſe's buſineſs. But if a Horſe be of a weakly conſtitution, and a bad feeder, I would above all things recommend the laſt mentioned bitter draught to be alſo complied with, which will promote a good appetite and help digeſtion; and to this may be added an ounce of Guiacum, which, by ſweetning the Blood, may help to remove the original cauſe from whence the moſt dangerous and troubleſome kind of vermin are produced; for when Worms and wormy matter is bred by high feeding,

feeding, want of air and due exercise, or from unwholesome food, they may be often removed by a contrary regimen, without medicines, at least with the help of a very few things; sometimes with Rue and Garlick, Savin, Tansy, and other simples. But when Worms are the produce of natural weakness, or owe their production to any fault in the constitution, that contaminates the Blood and dispose the Juices to putrefaction, the cure will then be difficult and tedious, and may require an alteration or change of the whole habit of the body before that can be effected.

Of a Lax and Scouring, and of a Diarrhœa.

ALL Fluxes of the Belly in Horses, are generally included under the names of a Lax and Scouring. When a Horse falls a purging, and continues but a short space in it, or when he is more than ordinarily open, and dungs like a cow, it is called a Lax; and when the purging continues, though it amounts to what we call a Diarrhœa in men, he is only said to scour. As for a Dysentery, *viz.* when Blood, or when Blood and Slime come away with the excrements, it is a symptom that seldom happens but when a Horse has been wounded in the Guts, or has received some uncommon treatment, and not the meer effect of a Diarrhœa. That Horses are not subject to Dysenteries, perhaps may be owing in a great measure to their horizontal position, whereby the *Intestinum Rectum* is less affected in purgations, than it generally is in men; besides

beſides the violent gripings that are almoſt always the concomitants of a Diarrhœa, ſoon deſtroy a Horſe, if they are not removed in a moderate ſpace of time; ſo that it ſeldom ariſes to a Dyſentery or Bloody Flux.

The cauſe of Scouring in Horſes.

Scouring and looſeneſs in Horſes may proceed from various cauſes. Sometimes from Colds, or whatever ſuddenly ſtops perſpiration, will cauſe an inward redundancy, and go off in purging; ſometimes Scourings proceed from exceſſive feeding, or from unwholeſome food; and purging is ſometimes the effect of hard riding, or other violent exerciſe, which inflames the Bowels; and this is often attended with a diſcharge of ſlime and greaſy matter, eſpecially in fat Horſes that have been high fed, and have not been previouſly harden'd with exerciſe; and we frequently find Horſes of weak relaxed conſtitutions, throw out their food indigeſted with a Lax, whenever they are put upon briſk exerciſe. Purging is often the effect of long, continued, weakning ſickneſs, and it may alſo proceed from old ſurfeits, or other chronical diſtempers, eſpecially thoſe that inflate, and breed indurations in the Meſentery and inteſtinal Glands. Worms and wormy matter, diſpoſe Horſes very much to ſcour and purge, and ſometimes a great glut of water, or eating ſome uncommon thing in their food, may have the ſame effect; but theſe purgings are generally of ſhort continuance.

The Diagnoſticks ſhewing when the ſymptoms

When a Purging comes with a Cold, it is ſeldom dangerous, unleſs it be too ſuddenly ſtop'd. When it is the effect of exceſſive feeding, it always does good. As alſo the purging that comes upon

upon ſtrong exerciſe, with a ſlight fever, which ſometimes happens to Horſes that have been foul, and unprepared for it; for this often prevents Fevers, and inward Inflammations, which otherways might happen. Theſe Purgings that proceed from weakneſs of conſtitution are often tedious, and many Horſes do not get the better of this habitual Scouring till they are ſeven or eight years old. Purgings that proceed from old ſurfeits are often doubtful, and when they are the effect of any lingring ſickneſs, they generally prove mortal. When a Scouring proceeds from Worms, it ceaſes when the cauſe is removed, that is, when the Worms are deſtroyed, and the wormy matter carried off; and when a Horſe ſcours with eating any laxative thing, or with drinking much water, it is generally of ſhort continuance.

are dangerous, and when favourable.

When a plethorick Horſe, *viz.* a Horſe that is foul, and full of Blood, falls a purging with a cold, or upon hard riding, it ſhould be encouraged in a moderate degree, with an open diet, and plenty of warm gruel; if he voids great quantities of ſlime and greaſy matter, which in ſuch caſes is not unuſual, let the following Drench be given, and repeated every other day, till he has taken three draughts at leaſt.

The cure.

Take Lenitive electuary, and Cream of Tartar, of each four ounces; Yellow Roſin in fine Powder, one ounce: powder the Roſin with the Cream of Tartar, and mix them with the Lenitive Electuary, then add four ounces of Sweet Oil, or freſh Linſeed Oil, and incorporate

corporate the whole with a pint of warm Ale, or Water-gruel.

This will fetch away a great deal of ſlime and naſtineſs, after which the Horſe will grow eaſy, and feed heartily; and if there be a ſymptomatick fever, it generally goes off with the purging. But if notwithſtanding this, his dung continues ſtill to have a mixture of greaſe, or if it is covered with a ſkin or pellicle, it may be proper, as ſoon as he comes fully to his Stomach, to give him two or three mild purges. I have generally ſucceeded in the cure of this ſymptom, with the following alterative ball, adminiſter'd twice a week, without any other thing beſides ſcalded bran, and warm water or gruel.

Take Succotrine Aloes in fine powder, half an ounce, or ſix drams; Diapente, an ounce; make it into a Ball, with the Juice of Spaniſh Liquorice diſſolv'd in Water, or White Wine, and about a ſpoonful of Oil of Amber.

To this may be added two drams of Myrrh, and if it be neceſſary to make it more cordial, a dram of Saffron in powder may alſo be mixed with it.

This ball, by being ſeveral times repeated, will in many caſes, anſwer all the ends of purging phyſick, and purify a Horſe's Blood from thoſe viſcidities that come away with their dung, like ſlime or greaſe.

But when the purging begins with an acute fever, it requires a different treatment; as it ought

ought not to be indulged with things that are very laxative and looſening, ſo neither ſhould it be ſtopped, unleſs the fever increaſes with the purging, and then the propereſt remedy is Rhubarb. For at firſt no reſtringent ought to be uſed, which has not ſomething of a purging quality in it. Rhubarb not only helps to drain away any foulneſs that lies fretting in the firſt paſſages, but at the ſame time ſtrengthens the tone of the Stomach and Guts, and in this reſpect the *Materia Medica* does not furniſh ſuch another drug; and it is a pity it ſhould be often of ſo high a price, that it cannot be continued to any great purpoſe, but to Horſes of value. The *Indian* Rhubarb is much cheaper than that which is brought from *Perſia*, by the way of *Turkey* or *Ruſſia*; and if it happens not to be rotten or worm-eaten, will be found little inferior to the other. In all Diarrhœas, nothing is ſo proper as this drug, which may be given in the following manner.

Rhubarb, the moſt proper purge in a Diarrhœa.

Indian Rhubarb its Uſe.

Take *Indian* or *Turkey* Rhubarb, half an ounce, made into fine powder; Lenitive Electuary, an ounce and a half; Saffron and Cinamon in Powder, of each a dram.

The night after the operation, give half an ounce of Diaſcordium in a pint of Red Wine; let the Wine be made warm, and then diſſolve the Diaſcordium in it. This draught may be repeated every day, and if the Horſe be of ſmall value, it may be diſſolved in Water-gruel, or Mint, or Sage Tea. The Rhubarb ball may alſo be repeated once in two or three days, if the

Fever

Reſtringents when to be uſed.

Fever and Purging does not abate. But if the diſtemper continues violent, if the Horſe's Flanks and Belly look full and diſtended; if he appears to be much grip'd and in pain, without an appetite to feed, the following Glyſter may be given, and the doſe of the Diaſcordium may be inlarg'd to an ounce. For a reſtringent Glyſter,

Take Chamomile Flowers, one handful; Red Roſes, half a handful; Pomegranate Bark bruis'd, and Balauſtines (which are the Flowers of the wild Pomegranate) of each an ounce; boil in two quarts of Water to one quart, pour it off from the ingredients, and while it is warm, diſſolve in it two ounces of Diaſcordium, and an ounce of Mithridate, and let it be injected immediately, and repeated once a day till the Fever and Purging abates.

Theſe warm Glyſters, which are ſmall in quantity, that they may be the longer retain'd, greatly comfort a Horſe's Bowels, and ſoon give eaſe. And I have ſeldom known this method fail of ſucceſs, from my experience in many inſtances. For when the Fever, and other bad ſymptoms increaſe with the purging, a ſtop muſt be put to it with all poſſible ſpeed, a Horſe not being able long to indure the pain, ſickneſs, and faintneſs of a violent Diarrhœa, which generally ends in a Mortification of the Guts, unleſs proper care be taken to prevent it. A Horſe, after his recovery, ſhould at firſt have ſmall feeds, and pretty often, and his water in ſmall quanti-

ties

ties and often; and if the weather be cold, his water ſhould be warm'd, and now and then a cordial ball may be given, to ſtrengthen and invigorate his Stomach and Bowels.

I ſhall now proceed to another kind of Purging, which is common to many young Horſes, *viz.* where they are addicted to ſcour, without any palpable ſickneſs, or other very manifeſt cauſe, beſides weakneſs of conſtitution, or at leaſt where ſome previous error has been committed, either by keeping them too long on a warm looſe diet, and in the conſtant uſe of warm water, which too much relaxes and weakens their Bowels. Whatever this habit proceeds from, whether from natural weakneſs, or any kind of miſmanagement, if it continues obſtinate, ſtrengthners and reſtringents may be more or leſs needful, according as the ſymptoms may require. Horſes of hot fiery tempers are often liable to this malady, and will ſcour with every the leaſt exerciſe, and often their oats come away whole in their dung, from a weakneſs in digeſtion. The ſame alſo happens ſometimes to Horſes of a cold phlegmatick temper. And indeed very little can be done for the firſt, while they are young and unſettled, until they grow more temperate, and then they generally retain their food longer, and by that means receive more nouriſhment, which makes them look better, and grow ſtronger. The moſt likely method to help ſuch Horſes, is to be ſomewhat curious as to their diet, never to ſuffer them to drink their bellyfuls of water, but to give it often, and in ſmall quantities, for a large quantity of any kind

A proper diet for young Horſes that ſcour.

of water, by its weight, will increaſe a Scouring, where there is a habitual diſpoſition to purge. Such Horſes may be allowed a few beans, hard peas, or tares, when they travel, but at other times their Stomachs will not eaſily digeſt them. Their food ſhould be ſomewhat ſparing, and given in ſmall portions, that they may never be cloy'd, but may preſerve their appetites.

Theſe cautions are proper to be obſerved in dieting Horſes that have weak Stomachs, with a debility in their Bowels, and throw out their aliment indigeſted; and when the caſe proves obſtinate, and cannot be altered by a right œconomy in diet, and other requiſites, the following balls will do great ſervice.

Balls to ſtrengthen the Stomach and weakneſs of the Bowels.

Take Pomegranate Bark and Balauſtine Flowers, and Rhubarb, of each an ounce; Diapente, two ounces; Red Roſes dryed, half an ounce; let theſe be made into a fine powder, and form'd into a paſte, with a ſufficient quantity of a mucilage made of the Seeds of Quinces, and give the Horſe the bigneſs of a pullet's egg at any time when he has a more than ordinary diſpoſition to ſcour or purge, and that his corn continues to come away whole and indigeſted in his dung.

The way to make the mucilage of Quince Seed, is to take any quantity thereof, ſuppoſe an ounce, and boil it in a quart of water to a pint, then pour it off into a pan, and when it cools the liquor will be thick like a ſyrup.

To Horſes of ſmall value the following ball may be given twice a week.

Take

Take Mithridate, and Diapente, of each half an ounce; Bole Armoniack, two drams; make into a ball with Liquorice powder. A remedy for Horſes of ſmall value.

If the Horſe requires it more binding, Venice Treacle may be ſubſtituted, inſtead of the Mithridate. But if the Horſe grows weak with a continued Purging, half an ounce, or a whole ounce of Diaſcordium, in ſome caſes, may be added; eſpecially if the Horſe mends in his appetite upon the uſe of theſe things.

Sometimes Horſes of weak relaxed conſtitutions, are recovered with a ſummer's graſs. For tho' the graſs generally purges pretty briſkly the firſt fortnight or three weeks, yet after that the purging ceaſes, ſo that it ſerves to clear the Stomach and Guts from ſlime, or other matter that may fur up the mouths of the Lacteals, and hinder a Horſe's receiving nouriſhment from what he eats. The diuretick quality, which always reſides more or leſs in the graſs, contributes very much to drain away that habitual humidity in the Intrails, which brings on a habitual weakneſs in the conſtitutions of ſome Horſes; but now and then we meet with Horſes that have ſo much of a natural delicacy and tenderneſs, that no management has been able to do them effectual ſervice. Graſs ſometimes effectual in recovering the Tone of the Stomach and Bowels.

Horſes that have been long ſurfeited are ſometimes apt to purge, and when this happens before their ſtrength is too far decayed, it always does good, and ſometimes recovers them. I remember a very extraordinary inſtance of this kind in a Troop Horſe, that had been a long

Horſes ſometimes cur'd of Surfeits, with an habitual Purging.

time ſurfeited and hide-bound, but always retain'd a good appetite to his food, tho' without thriving upon it; at laſt he fell into a Purging, which began about *Chriſtmas*, and continued all the following ſpring, till towards the month of *May*, before it abated; every time he dunged, his excrements came away as thin as if he had taken a ſtrong doſe of purging phyſick; but as he was all this while cool and in good temper, without a Fever, or the leaſt abatement of his ſtrength or appetite, but had rather an increaſe of both, I judged it the beſt way to adminiſter nothing to him, unleſs ſome dangerous ſymptom ſhould ariſe; but leave his cure wholly to nature, which came on gradually, without the help of phyſick, or any other management beſides what was common to the other Horſes. And as the Purging abated, he grew fat and luſty, and afterwards continued a fine healthful and uſeful Horſe. I have alſo known other ſurfeited Horſes do well with a natural Purging of much ſhorter continuance, and only at certain intervals. But when ſurfeited Horſes, in Purging and Scouring, loſe their appetites, and void their aliment undigeſted, it is generally a ſign of ſome inward defect and unſoundneſs, and if they grow weaker in Purging, the laſt mentioned balls are proper to help them; tho' I think the beſt way in all ſuch tedious caſes, is to let them be turned out in the graſs ſeaſon, and taken up at night, until the nights grow warm, as well as the days; for graſs is as likely as any thing to repair the conſtitutions of Horſes that are broke with diſeaſes, hard labour, or violent accidents or neglects, or when

when they are too far gone, to diſpatch them out of the way.

This leads me to the laſt kind of Purging I ſhall have occaſion to mention, and which I have already hinted at in other parts of this treatiſe, *viz.* thoſe violent deadly Scourings which come with very violent or long continued ſickneſs, and reſemble the colliquative Diarrhœas that happen to the human body in many conſumptive caſes. I have been ſeveral times ſent for to Horſes in this condition, ſome of which have been quite worn out and decayed with the long continuance of the Farcy or other lingring diſtempers, whereby the whole maſs of Blood has been turned to ſlimy ſeroſities and greatly corrupted. Others have had putrid, peripneumonick, or hectic Fevers, whereby the Lungs and other *Viſcera* have been tainted, and perhaps for want of ſufficient bleeding and other evacuations in the beginning, the whole maſs has been brought into a mortified ſtate, which generally terminates in a violent Purging, of fœtid ſtinking ſlime of a dirty brown colour, like brine. The ſame kind of matter generally runs from their Noſes, and the Glands of their Mouths and Throats are uſually inflated, and oft-times, when the Lungs are impoſtumated, a *Vomica Pulmonum* enſues; and when theſe break, the matter ſometimes ruſhes upwards into the Windpipe. This I have ſeen ſeveral times; for the moſt part whenever it happens, the Horſe is ſtrangled and expires. I never pretend to preſcribe when things are come to this paſs, for here no help can be given, and I have only mentioned them for gentlemen,

Violent purging in the end of long ſickneſs, for the moſt part mortal.

or thoſe who practiſe farriery, for their better information, and to avoid unneceſſary expence.

Of COSTIVENESS.

The uſual cauſes of Coſtiveneſs.

Costiveness ſometimes proceeds from violent and hard exerciſe, eſpecially in hot weather, which by increaſing perſpiration too much, diveſts the Blood of its thinner ſeroſities, which is the cauſe of that heat and dryneſs which is obſervable in Horſes that are bound in their bodies. Sometimes Coſtiveneſs proceeds from a contrary cauſe, *viz.* from ſtanding long at hard meat, without graſs or other cleanſing diet, and have but little air and exerciſe, or have their exerciſe only in ſpurts, and not continued. When Coſtiveneſs proceeds from either of theſe cauſes, it is eaſily remedied, if taken in time. But there is another kind of Coſtiveneſs in Horſes, which is more hard to be removed, *viz.* that which ſeems to be natural or grown into a habit. We find ſome very good Horſes liable to this diſorder, and when it is of long continuance, they are apt to grow lean and emaciate, feel hot and dry, their hair ſtaring, and there is danger of ſome approaching ſickneſs.

The cure.

In the firſt caſe the cure is eaſy, only by giving him an open diet for ſome time, and if any thing more is wanting, lenitive mild purges are the moſt likely to ſucceed. In the ſecond, when Coſtiveneſs proceeds only from want of air and exerciſe, and a cooling lax diet, it is no leſs eaſily remedied with proper lenitives, as *Glauber*'s Salt with Lenitive Electuary, *viz.* four ounces

of

of each, diſſolv'd in warm ale or warm water; this may be repeated every other day, with ſcalded bran every day, till the Horſe's body is thoroughly opened, giving him at the ſame time air and exerciſe, which will probably remove that lentor in the Guts, and carry off the viſcid ſlime ingendered there, which is the cauſe of his Coſtiveneſs. Oily glyſters may alſo do good ſervice in this caſe; and when theſe things have been complied with, two or three purges will probably finiſh the cure.

Habitual coſtiveneſs how to be treated.

But that ſort of Coſtiveneſs which ſeems natural to the conſtitutions of ſome very good Horſes, is not eaſy to be removed, and we find it ſeldom neceſſary to bring ſuch Horſes into a contrary habit; for where this is natural, it may proceed from a more than ordinary ſtrength and rigidity in the Fibrillæ of the Stomach and Guts, which makes them digeſt their aliment well, and retain their excrements longer; and when ſuch a habit can be kept within any right medium, the Horſe will continue in ſtrength and vigour, without any inconvenience; and it is obſervable that theſe Horſes are for the moſt part able to indure great fatigue and labour. However, it is proper to give ſuch Horſes, at all convenient times, an opening diet. For if this habit by any accident happens to increaſe and grow into an obſtinate Coſtiveneſs, ſo as to produce ill effects, as heat, dryneſs of the conſtitution, little ſcabby eruptions over the ſkin, and a rough coat, it will then be neceſſary to remove it in ſome degree, which cannot be

done but by a continued use of emollients, and a loose opening diet along with them.

Purging is here also necessary, and ought by all means to be complied with; yet purging in the common way, with *Barbadoes* or other Plantation Aloes, seldom has any great effect longer than the purge is working; for when that is over, the same habit of Costiveness generally returns as strong as ever. Scalded bran and our common opening diet seldom makes any great alteration in these Horses, for I have known them continued for a month together, or longer, on marshes, and remain costive all the time, tho' not to such a violent degree as upon dry food. The Aloetick purges will scarcely work, especially if they be made made strong, sometimes they run off chiefly in urine, which does them but little service in this case. But when the common purges have failed, the following will succeed beyond expectation.

Take Succotrine Aloes, six drams; Spermacœti, half an ounce; Fœnugreek seeds, in powder, two ounces; make into two balls, with a sufficient quantity of Honey or common Treacle, and give them in the morning fasting.

Let the Horse have scalded barley instead of scalded bran, and the liquor of the barley for his drink, milk warm. This will work very gently where stronger purges have little other effect upon costive Horses than to make them sick and griped. It ought to be repeated once

in

in four days, and may be continued till he has taken ſix doſes. Let him have an ounce of Fœnugreek ſeeds once a day, in one of his maſhes, and when the purgation is over, continue the uſe of the Fœnugreek; and ſometimes give Linſeed in the ſame manner, either in his dry or moiſt feeds, until the Horſe grows ſmooth and well coated, and his dung moiſt and in good order.

Of the YELLOWS and JAUNDICE.

HORSES are frequently ſubject to the Jaundice, but in them the Jaundice is ſeldom ſo much complicated with other diſtempers, as men; and therefore when diſcovered in time, it may for the moſt part be eaſily removed; tho' when it paſſes on unobſerved, as often happens, it induces very bad ſymptoms, as violent Fevers, Deliriums, Madneſs, and at laſt convulſive Diſorders; for which the reader may conſult what has been ſaid concerning the Staggers and Convulſions.

That which properly conſtitutes the Yellows or Jaundice, is when too great a proportion of bilious matter is retained in the Blood.

The cauſe is often the ſame that induces many other ſickneſſes among Horſes, *viz.* their catching violent Colds; for I have obſerved many of their Colds accompanied with Fevers of the bilious kind. Full feeding and want of ſufficient exerciſe or evacuations, at ſome proper ſeaſon. Coſtiveneſs. Violent exerciſe cauſing too great a derivation of Blood into the Liver, eſpecially

The cauſe.

eſpecially where the Liver is preternaturally large. Unwholeſome Food. Old ſurfeits, inducing a bad habit of body. Theſe and many other ſuch cauſes produce the Yellows in Horſes; and if we add to this what may be obſerved from the ſtructure and mechaniſm of a Horſe's Liver, *viz.* that he has no Gall-Bladder, but only a pretty large pipe, with two or three ſmaller ones that open into it, we may reaſonably conjecture that a Horſe may be more eaſily ſubject to bilious diſtempers than other animals that have a proper receptacle for the gall; and I have often obſerved a tincture of yellowneſs in many of their diſorders.

The ſigns of the Yellows in Horſes.

The ſigns of the Yellows or Jaundice in Horſes, are a duſky yellowneſs of the Eyes; the inſide of the Mouth and Lips, the Tongue and bars of the roof of the Mouth look alſo yellow. But here we are to diſtinguiſh between the yellowneſs of the Jaundice, and that yellowneſs of the Mouth and Eyes which ſometimes happens to Horſes as well as men, upon the criſis of an inflammatory Fever, where the inflamed parts turn yellow, when the Fever and Inflammation is going off. When this happens after a Fever, the Horſe generally comes to his appetite, and looks lively, and the Fever leaves him, the yellowneſs alſo ſoon wears off. But in the Jaundice the yellowneſs is one of the firſt ſymptoms, and generally appears in the beginning of the diſtemper. The Horſe is dull, and refuſes all manner of food, and the Fever begins ſlow, yet both the Fever and the yellowneſs ſoon increaſe and grow together. In the decline of an in-

How the Yellows to be diſtinguiſhed from the yellowneſs

inflammatory Fever, a Horſe dungs and ſtales freely, and in a kindly manner. In the Yellows the dung is often hard, dry, and of a pale yellow, or light pale green. The urine is commonly of a dark dirty brown colour, and when it has ſettled ſometime on the pavement, it looks red like Blood. He alſo ſtales with ſome pain and difficulty; and if the diſtemper is not ſoon checked all the ſymptoms increaſe, and the Horſe ſoon grows delirious and frantick.

that appears in the decline of a Fever.

The Jaundice in young Horſes is ſeldom dangerous, and when it comes with high feeding and want of ſufficient exerciſe, it is more eaſily removed than when it is brought on by hard riding or other hard labour, for by that means the Liver may become impoſtumated and ſoon turn rotten. In old Horſes, when the Liver has been long diſeaſed, the cure will ſcarce be practicable; for inſtance, a Horſe that has been a conſiderable while dull, heavy, and inactive, with a ſurfeited look, ſeems always aukward and unready in turning ſhort and twiſting his body, eſpecially to the near ſide. The off-ſide of his Belly hard and ſomewhat diſtended; if the yellowneſs of the Mouth and Eyes appears at the ſame time, we may then ſuſpect a diſeaſed Liver, and probably a Schirrus; if theſe hard ſchirrous ſubſtances are ſmall and ingendered in the thinner lobes of the Liver, a Horſe may probably linger out a conſiderable time with that defect. But if the ſchirroſities grow large, or happen to be ſeated near the *Porus Biliarius* or Gall-pipe, or the larger branches of the *Vena Porta*, the Horſe will grow exceeding weak and unable

The prognoſticks.

unable to endure the leaſt fatigue, the yellowneſs will increaſe, and if the owner can have patience to keep him without labour, he may then hold out to the laſt ſtage, that his Belly and Limbs ſwell, and a waſting Diarrhœa or Scouring puts an end to his miſerable life; but when none of theſe laſt mentioned ſymptoms appear, but the Horſe retains a moderate degree of ſtrength and vigor, and the diſtemper, without any previous ſigns of ſickneſs or diſorder, there will be no fear of his recovery, if proper care is taken, and proper means applied.

The cure. In the cure of the Jaundice, the firſt intention is to bleed plentifully before the diſtemper is confirmed; for when the Liver happens to be inflamed from any cauſe, either by hard ſtraining, over feeding, or fulneſs of Blood, attended with a Fever, proper evacuations have been often found alone ſucceſsful. But if the diſtemper be confirmed, it will be proper, after Bleeding, to give ſome laxative Glyſters. For in the beginning of the Jaundice, Horſes are apt to be coſtive, and ſometimes Coſtiveneſs alone, with a few other ſlight cauſes, has brought on the ſymptoms of that diſtemper.

In this caſe the following Glyſter will do good ſervice.

Take Mallows, Marſh-Mallows, Mercury, and Pellitory, of each a handful; Chamomile-Flowers, half a handful; ſweet Fennel-Seeds, an ounce; boil in three quarts of Water to two quarts, pour off the decoction, and while it is warm diſſolve in it four ounces of Lenitive

tive Electuary, and then add a pound of Linſeed Oil; to be given as ſoon as poſſible, the Horſe being firſt well raked, to fetch out any hard dung that may lie in the Streight Gut.

At the ſame time let the following decoction be made for his conſtant drenches.

Take Madder-Root and Turmerick, of each two ounces; the Roots of ſharp pointed Dock, or Burdock, wiped clean from the mould and ſand, and cut into thin ſlices, of either of theſe two handfuls; Rhaponticum, or inſtead thereof, Monks rhubarb, cut or groſsly bruiſed, one ounce; Liquorice-Root, ſliced, half an ounce. Boil theſe ingredients in a gallon of Forge-Water to three quarts; and when this is done pour it off from the ingredients, and while it is warm diſſolve in it two ounces of *Caſtile* Soap. (*Venice* or *Joppa* Soap, will have the ſame effect,) Saffron, two drams. The Soap ſhould be cut into very thin ſlices, and the Saffron tied up in a rag, and ſqueeſed in the decoction.

Give the Horſe three or four ſpoonfuls three times a day, and as ſoon as he begins to feed, twice a day will be ſufficient. But if the Horſe be delirious and unruly, which is often the caſe of thoſe that are full of Blood, the bleeding muſt be repeated either from the Neck or Thigh-Veins, which ſome people chuſe, and the following Balls may alſo be given one with each drench, *viz.*

Take

Take Diapente, two ounces; Aſſa Fœtida and Cinabar of Antimony, of each an ounce; Caſtor, half an ounce; Saffron, carefully dryed; two drams. Let the Cinabar, Saffron, and Caſtor, be made into a fine powder, ſeparately, then beat up with the Aſſa Fœtida and a little Honey, into a ſtiff paſte, which is to be ſoftened with a ſufficient quantity of Oil of Amber, and made into ſix balls, rolled in Flour and Liquorice Powder.

After the uſe of theſe, with the drinks, the Horſe generally grows ſettled and quiet, and begins to feed; ſo that the drinks need only be given twice a-day between his maſhes. In three or four days the diſtemper for the moſt part abates, and then the balls may be laid aſide, to avoid unneceſſary expence, but the drinks ſhould be continued till the yellowneſs is quite gone, and till the Horſe feeds pretty heartily, and drinks his white water or gruel. When his eyes look clear, and the inſide of his Mouth of a lively colour, there will be no further need of medicines, but if a defluxion falls upon his Eyes, and ſhuts them up, with a ſwelling of the Eye-lids, which often happens when the diſtemper is near its criſis, and going off, the drinks muſt be continued once a day for a fortnight or three weeks at leaſt, to prevent Blindneſs, for Horſes after this ſymptom are very apt to go blind, unleſs they be well plyed with medicines, that are both deterſive and balſamick; and therefore to avoid expence, and the trouble of making drinks, the following balls may be given

one every day, and continued a fortnight or three weeks.

Take Turmerick in Powder, and Diapente, of each two ounces; *Caſtile* Soap, two ounces; Cinabar of Antimony, one ounce; *Crocus Martis Aperiens*, ſix drams; Saffron in Powder, two drams, make into eight Balls with Honey, and give one every morning.

Mild purges neceſſary after the Yellows.

It may be neceſſary to give the Horſe two or three mild purges with Succotrine Aloes, as ſoon as he has recovered his appetite, and a moderate degree of ſtrength. Rowelling is alſo proper in the Jaundice, eſpecially for young fat Horſes; tho' I have cured many Horſes of the Yellows, without the help of rowels, and have never known this method fail which I have here recommended, if the Horſe was not previouſly broke with diſeaſes. For when the Liver, or other internal parts have been any time diſtempered, when a Horſe exhibits more or leſs the ſigns above deſcrib'd, *viz.* a ſurfeited look, hardneſs and a tenſion on the right ſide of the Belly, or is obſerved always to labour in turning round, and is apt to flag with the leaſt exerciſe, it will ſcarce be worth while to loſe much time, or beſtow medicines upon him. In ſuch a caſe, a ball two or three times a week made of Soap, Turmerick, and Saffron, *viz.* an ounce of Turmerick, half an ounce of *Caſtile* or *Venice* Soap, and a dram of Saffron made up with Honey; and if the Horſe has at the ſame time a Cough, and inward ſoreneſs, which often attends a diſeaſed Liver, and is a very bad ſign, the ball may be made

How to know when the Liver is diſeaſed.

The method to be followed in that caſe.

made up by abating the Soap to two drams only, with two drams of Spermacœti, to moderate the deterſive quality of the Soap, with half an ounce of Cinabar. This method will not be very expenſive, and by long continuance may recover a Horſe, if the Liver is not impoſtumated, even tho' there may be ſomewhat of hardneſs or induration begun in it.

I do not remember to have ſeen Gall-Stones ingendered in Horſes Livers, as in the Livers of the horned Cattle, but I have ſeen them ſeveral times with Tubercles, full of ſtinking matter; and ſometimes Horſes that have dy'd of a ſymptomatick Fever, riſing from an Inflammation of the Liver, have their Livers reſembling black clotted Blood, and nothing remaining ſolid and intire, but the membranous Parts, and the Coats of the larger Blood-veſſels, the glandulous Parts being turn'd into Grumes. This the Farriers and Collar-makers, improperly call Rottenneſs of the Liver, tho' perhaps it has not been above two or three days, when the Liver has been found in all reſpects, except an over plenitude of Blood. And this I think is a ſufficient indication, how far it is neceſſary to bleed plentifully in all caſes, where the yellowneſs is accompany'd with a Fever, and when the ſubject is young and full of Blood. This will alſo juſtify rowelling, glyſters, and other mild purgations, at proper intervals, when the Fever is abated, with the concurrence of thoſe deterſives that are uſual in the Yellows and Jaundice.

Of Ruptures and Burstenness.

WHEN any part of the Guts or Caul, makes its way thro' the Muſcles of the Lower Belly, it is called a Rupture; when any part of the Guts falls into the Scrotum, it is ſaid to be a Compleat Rupture; when at the Navel, it is called an Umbilical Rupture. I once ſaw a fine *Spaniſh* Stone Horſe with a compleat Rupture; the ſwelling was ſo extreme large, that the Gut extended the Scrotum down to his Hock, that rendered the cure in a great meaſure impracticable. This was the only one of the kind I ever ſaw, and is a caſe that muſt ſeldom happen, the poſition of a Horſe's Body being ſuch, as cannot eaſily expoſe him often to Ruptures into the Scrotum, as men whoſe poſture is erect. I alſo have ſeen a Gelding, where probably ſome part of the Gut or Peritoneum, had made its way thro' the vaginal Paſſage, into the membranous parts of the Sheath on the right ſide; for the Omentum or Caul ſeldom reaches ſo low in a Horſe, his continual horizontal motion throwing it for the moſt part foreward in Rumples. The ſwelling was about the ſize of a Gooſe's Egg, a great part of which might be thruſt back with the Finger into the Cavity of the Lower Belly, but immediately return'd in the manner of a flatulent tumor; and perhaps there might be ſome portion of air along with it. The cure was never attempted, becauſe it was little or no hindrance to the Horſe in his buſineſs,

Ruptures deſcrib'd.

ſineſs, the ſwelling being generally fuller when he ſtood ſtill, than when he work'd.

But the moſt uſual Ruptures are more upwards, and proceed from ſtrains in working, or from being ſtak'd or gor'd by Bullocks, violent kicks from other Horſes, very high leaps over gates and hedges; all which things ſometimes divide the Muſcles of the Lower Belly, and oft-times without piercing or rending the Skin, whereby a portion of the Inteſtines, with a part of the Peritoneum, and when the wound happens to be forward, part of the Caul may alſo be lodged where theſe Muſcles are ſeparated or divided, and ſo cauſe a ſwelling of a proportion and ſize equal to the rent made in the part.

Horſes ſubject to various kinds of Ruptures.

An inſtance of this kind I once ſaw, of a very fine *Flanders* Mare, that had a Rupture near her Navel of a conſiderable ſize, which however did not prevent her working, but as it grew larger it became troubleſome; and a very eminent and able Surgeon, imagining the ſubſtance to be fleſhy, and of the nature of a Wen, perſuaded me to have ſome trial made of it by exciſion, for it felt ſolid as ſhe ſtood on her Legs, which might be owing to part of the Caul (which is always roll'd forwards in working Horſes) and along with this, an adventitious growth of Fleſh, cauſed by the rending of the Muſcles and Membranes, for when ſhe was thrown upon her Back, part of the ſubſtance went inwards, and plainly diſcovered her malady to be a Rupture.

I have known ſome few inſtances of Umbilical Ruptures, that have been cauſed by rowels in the Belly, when they have been cut too deep,

and perhaps were afterwards neglected. And I knew a Horſe with a Rupture of this kind, perform a journey of ſeveral hundred Miles, without any great inconveniency, only that he always went ſluggiſh at his firſt ſetting out, but more chearfully as he emptied himſelf. Nevertheleſs this is a very great defect, and few Horſes with ſuch infirmities can be long uſeful. I have ſeen other Ruptures, and theſe are indeed the moſt uſual, that puſh out on the ſides of the Lower Belly, where the *Tunica Vaginalis* paſſes thro' the Rings of the Muſcles, with the Spermatick Veſſels into the *Scrotum*; and in Geldings they ſeldom reach further than the firſt Ring, which is a little way above the Groin, but when they happen on the ſides of the Flanks, they are then for the moſt part owing to ſuch accidents as have been above-mentioned. They generally bunch out about the ſize of a Man's Fiſt, and are fulleſt when the Horſe ſtands ſtill in the ſtable, eſpecially after feeding and watering, and in broken-winded Horſes they riſe and fall with the agitation of their Flanks; they are ſoft, and yield to the preſſure of the hand, and in moſt of them one may feel the vacuity thro' which the *Viſcera* make their way immediately to the ſkin. But as there is no abſolute cure to be expected in ſuch caſes, the ſafeſt way is to feed moderately, and in ſmall quantities, with ſmall draughts of water, and to uſe ſuch Horſes gently. In all beginning Ruptures, a fomentation made of Oak Bark, boil'd in equal parts of the ſharpeſt Vinegar, and Smith's Forge-water, will be the moſt pro-

The way how Horſes are to be managed in Ruptures and Burſtenneſs.

per for a general application; for in Horſes, bandage and truſſes of any kind, are for the moſt part impracticable.

I ſhall conclude this ſubject with an inſtance of a very fine Gelding, that was killed by a Rupture, and in a manner ſomewhat extraordinary and remarkable. This Horſe belong'd to a perſon of diſtinction, and was abroad with our Army in *Germany* and the *Netherlands*. He received a hurt while he ſtood at the picquet along with ſome other Horſes; and went thro' his buſineſs very well two years, notwithſtanding that accident, but after a hard day's hunting, was taken with the Gripes, of which he dy'd. I was ſent for to view his intrails, where there was ſomething that ſurpriſed all that ſaw him opened. The Ring through which the *Tunica Vaginalis* paſſes, appears plainly in a Horſe to be form'd of the tendinous part of the Muſcles, has the ſtrength and firmneſs of a Ligament, and reſembles a hem or large oilet hole, ſuch as we ſee in the ſails of a ſhip; one half of this Ring was torn off from the Fleſh, and lay acroſs the Orifice, which tyed up a duplicature of the Colon ſo tight that nothing could paſs through it; which was the true cauſe of his ſudden death. I have briefly related this caſe, that thoſe who are employ'd about Horſes, may be ſo far informed in ſuch things as to examine them carefully when the Gripes, or any other ſudden diſorder ſeizes them. For if the duplicature of the Gut had been forced back into the cavity of the Lower Belly, when he was firſt ſeized, his death might probably have been prevented; for

this

this Rupture ſeldom appear'd larger than a man's fiſt.

CHAP. VIII.

Of the Diſeaſes of the Bladder, Kidneys, and Urinary Paſſages.

HORSES are very often ſubject to Diſeaſes of their Kidneys, not from the ſame cauſes as men, *viz.* from intemperance of one kind or other, which produces many ill effects, but from accidents of various kinds. The Stone is the moſt miſerable of all other diſtempers, to which thoſe parts are ſubject; ſometimes in the Kidneys and Ureters, and ſometimes in the Bladder. I have been told of large Stones found in the Bladders of Horſes, but among all I have ſeen opened, I cannot ſay I ever met with Stones either in the Kidneys, Ureters or Bladder, but have, for the moſt part, found the Bladder ſound, even when the Kidneys and others of the Intrails have been faulty; nevertheleſs, I ſhall not pretend to doubt the veracity of what ſome have related, for Stones have not only been found in the Bladders of ſeveral animals, but in their Stomachs, and in other parts of their bodies, as we may find in the writings of ſome diligent enquirers into ſuch things; but I may conclude, from my own knowledge, that the Stone is a diſtemper ſeldom to be met with in Horſes, and therefore I ſhall not take up the reader's time, either with the deſcriptions we meet with of the Stone, or the methods laid

Horſes rarely ſubject to the Stone.

down for its cure, which I imagine would be of little uſe, and would neither anſwer the expence nor trouble, that the owner muſt have, to little or no purpoſe. And therefore I ſhall proceed to ſuch diſtempers in thoſe parts as are common and uſual, wherein the ſame applications are often made uſe of that are proper in the ſymptoms of the Stone and Gravel. As for the Gravel, I have been no leſs careful to examine the Pavements where Horſes have ſtaled, eſpecially in diſtempers that affect the Kidneys and Urinary Paſſages; and tho' I have often obſerved great impurities come away with the Urine, yet ſeldom any thing like ſand or gravel, even when the moſt powerful balſamick diureticks were given.

Of Hurts and Strains of the KIDNEYS.

Horſes often diſeaſed from hurts in their Kidneys and urinary paſſages.

HORSES receive hurts in their Kidneys ſeveral ways, ſometimes by drawing great loads in heavy grounds, ſometimes by carrying too great weight upon their Backs, eſpecially when it preſſes upon their Loins, and above all, when theſe burdens are continued ſo long upon them till they grow faint and weak, for then they are moſt apt to be injured; continued hard riding without giving a Horſe time to ſtale, often hurts the Kidneys; going into ſtrong exerciſe when a Horſe is fat and full of Blood, and otherwiſe unprepared for it; on the other hand, riding or hard-working Horſes, when they are poor and lean, or upon a low diet, or if this be not the caſe, yet if they be worked and laboured till they

The uſual way whereby they receive ſuch injuries.

they be faint and weak, as above-mentioned, their Kidneys, and ſometimes their other *Viſcera*, are alſo hurt and impaired. Sometimes external injuries on the Loins, will alſo affect the Kidneys, by inflaming them firſt, and this may be followed with Impoſthumes and Ulcers. And laſtly, colds and other accidents will affect the Kidneys, where there is a natural weakneſs in thoſe parts, of which we meet with frequent inſtances.

The ſigns are weakneſs of the Back and Loins, difficulty of ſtaling, faintneſs, loſs of appetite, and deadneſs of the Eyes; the Urine thick and foul, and ſometimes bloody, eſpecially after ſome violent Hurt or Strain. A Horſe diſeaſed in his Kidneys can ſeldom back, that is, move ſtreight backward without pain, which is viſible as often as he is put to the trial; the ſame thing is no leſs obſervable in Horſes that have been wrung or wrenched in their Backs, only with this difference, that in the latter caſe Horſes ſeldom ſhew any great defect or alteration in their Urine, otherwiſe than that it will be higher coloured than ordinary, neither will they loſe their appetite or fleſh, unleſs their Kidneys be alſo hurt, which ſometimes happens; if the diſtemper continues for any conſiderable time, the Horſe exhibits all the ſigns of a ſurfeit, which is owing to the want of a due ſeparation of Urine from the diſeaſed Kidneys, which eaſily produces ſuch effects. The ſigns of hurts in the Kidneys, &c.

Diſeaſes of the Kidneys always prove dangerous by long continuance, eſpecially if the Horſe grows weak, and breaks out in ſcabs and blotches; Diſeaſes of the Kidneys dangerous.

ches; for ſuch Horſes generally turn conſumptive or glandered. When a Fever attends a difficulty of ſtaling, it is often a ſign the Kidneys are inflamed, and prove dangerous unleſs ſpeedily removed; the danger is ſometimes no leſs when the Urine happens to be thick, roapy, and full of ſlime, or bloody matter, eſpecially when theſe ſymptoms laſt a conſiderable time without abatement, that the Horſe grows weak and feeble, and without a tolerable appetite to his food: but it is always a promiſing ſign, when a Horſe that is diſeaſed in his Kidneys, recovers his appetite and ſtrength, looks ſprightly in his Eyes; notwithſtanding there may be a diſcharge of turbid Urine, provided it comes away without much pain and ſtraining: but when a Horſe begins to ſtale freely, when the dregginеſs and ſettlement abates, when his Urine looks clear, or of a yellowiſh colour, we may then conclude him to be, in a great meaſure, out of danger. And when any of theſe ſymptoms proceed only from colds, they are ſeldom of ill conſequence, but may, for the moſt part, be eaſily removed, unleſs a Horſe happens to have a natural imbecility and weakneſs in his Kidneys, in which caſe, all hurts or accidents whatever, in thoſe parts, may prove dangerous.

The ſigns that promiſe a recovery.

The ſhedding of the Seed, ſo called, is frequently nothing elſe than the going off of a Cold, from which follows a running at the Yard, and may be cured by gentle purgation, and the uſe of healing and balſamick Medicines. When the diſorders of the Kidneys proceed only from catching cold, which may be known from the

the uſual ſymptoms of a Cold accompanying the ſymptoms above deſcribed, the Cold muſt be treated as the primary diſtemper, and therefore, whatever removes that, will probably remove the other, eſpecially by adding coolers and diureticks to ſuch balſamick medicines as are given for the Cold, *viz.* ſuch diureticks as will be preſcribed for the diſorders of the Kidneys, that are cauſed by other accidents; it will be alſo proper, where there is a natural weakneſs in the Reins (as happens to ſome Horſes that are open, and not cloſe ribbed) to uſe ſuch Horſes with gentleneſs, for few of them are able to bear hardſhips, eſpecially while they are young; they ought alſo to be carefully fed, and in a proper mediocrity, neither too high nor too low, nor irregularly, by full feeding at one time, and ſtarving at another; their food ſhould alſo be wholeſome and good; they ſhould never be overloaded by carrying heavy burdens, or too great a weight of any kind, on the ſaddle or otherwiſe; and if by theſe cautions, or by any other proper means, Horſes with theſe defects, are preſerved unhurt, till they are ſeven or eight years old, ſome of them will turn out much better than expectation.

A proper diet for Horſes that have their Kidneys any ways affected.

But if a Horſe has received any hurt or injury in his Kidneys, by ill uſage of any kind, eſpecially from the cauſes above-mentioned; it will be proper to begin his cure with bleeding plentifully, to prevent inflammation; after this a rowel in the Belly will alſo be of ſervice, by making a derivation from his Kidneys. Inwardly the following medicines will be of great

The cure of hurts and ſtrains of the Kidneys.

uſe

uſe to clear away the impurities by Urine, and to heal the diſeaſed parts.

Take Iriſh Slate in powder, and Spermacœti, of each an ounce; Sal Prunellæ or Nitre, ſix drams; make into two balls with a ſufficient quantity of *Barbadoes* Tar, and Liquorice Powder. Or this,

Take Lucatellus Balſam, an ounce; the roots of Florentine Orrice in powder, and powder of Liquorice, of each half an ounce; Spermacœti, ſix drams; Sal Prunellæ, half an ounce; make into two balls with Syrup of Marſhmallows.

Let either of theſe be given every morning till the Horſe has taken ſix or eight doſes, with a draught of the following decoction after each doſe.

Take Roots of Marſhmallows, wiped clean from the ſand and mould, but not waſhed, with the Roots of Parſley and Aſparagus, alſo wiped, and cut into ſlices, of each two handfuls; Coltsfoot and Horehound, of each a handful; Liquorice Root ſliced, an ounce. Boil in ſix quarts of Barley-water to a gallon; pour off the decoction to ſettle, then warm it again, and diſſolve in it an ounce of Gum Arabick or Gum Tragacanth, and a pound of Honey; a pint, or three half pints for a doſe.

This may not only be given with the balls, but at any other time at pleaſure; and if the Horſe

Horſe recovers upon the uſe of theſe things, that he ſhews no pain or labour in ſtaling, that his Urine comes away freely and in ſufficient plenty, that he recovers his ſtrength and vigour, there will be little need of the further uſe of emollients and balſamicks; but the Horſe may have two or three mild purges given him to compleat the cure. Such as this,

Take Succotrine Aloes, an ounce; Myrrh and Gum Guiacum, of each half an ounce; freſh Jallap in powder, one dram; make into a ball, with ſix drams of Lucatellus Balſam, and about ſixty drops of unrectified Oil of Amber.

Repeated bleeding ſometimes neceſſary.

But if the diſtemper happens to be obſtinate, from the extreme violence of any hurt received, the bleeding ſhould be repeated, and the balſamick medicines may be continued. If he paſſes his Urine with great difficulty and pain, give the following ball, *viz.*

Venice Soap or *Caſtile* Soap, an ounce; Spermacœti and Myrrh in fine powder, of each half an ounce; cut the Soap and beat it together with the Myrrh; rub the Spermacœti with the Yolk of an Egg, and when they are all incorporated, make into a ball, with as much *Venice* Turpentine as will bind it.

Two or three of thoſe may be made and given in a day, till the Horſe ſtales without pain, and his Urine becomes of a right conſiſtence, and free from any purulent ſettlement; and when a Horſe arrives to this ſtate, the above-mentioned

purge

purge may be given, and repeated as often as needful.

But if after all, the Horſe loſes his fleſh and appetite, and at the ſame time continues to have a great diſcharge of foul turbid Urine, eſpecially if it be fœtid, ſtinking, and with a bloody look, and a black or very dark ſettlement, it is a ſign one or both Kidneys are ulcerated, and ſuch Horſes generally turn conſumptive. And therefore, when an Atrophy or waſting comes on, with a ſwelling of the Kernels about the Throat, the Horſe may be looked upon as incurable.

Of a Suppreſſion of URINE, from a defect in the KIDNEYS.

The cauſes of the ſuppreſſion of Urine.

THIS is cauſed either by an Inflammation of the Kidneys, when the ſwelling and diſtention happens to be ſo great as to fill up or preſs the ſides of the Pelvis, or when the Pelvis or Ureters are choaked up with ſtones, or other foreign matter, or from any numbneſs or other defect in the Kidneys, that may diſable them in their office of ſeparating the Urine from the Blood; in this caſe the Bladder is generally empty, ſo that a Horſe will make no motions to ſtale, nor ſtand ſtradling as in other diſorders of the urinary paſſages, when the Bladder is full, or the Urethra inflamed; but if he continues a few days in this condition, without a ſeparation of the Urine, his Body will ſwell to a very great degree, and the urinous part of the Blood will break out in blotches

ches all over him, and without ſpeedy relief, will prove deadly.

Men ſubject to the Stone are ſometimes tormented with a ſuppreſſion of Urine, ſmall ſtones choak up the Ureters or Kidneys, whereby the Nerves become ſo affected, as to cauſe a deadneſs and inſenſibility in thoſe parts, which by that means are rendered incapable of making their proper ſecretions; but I believe Horſes are rarely ſubject to this malady, unleſs when their Kidneys are waſted or greatly diſeaſed, of which I have known ſome few inſtances. The proper method of cure is to begin with the ſtrongeſt diureticks, and ſtimulating Glyſters, and if there be a ſuſpicion of Inflammation in either or both Kidneys or Ureters, bleeding plentifully at the Neck, at the Liver-Veins, Kidney-Veins, or Thighs, to the amount of three pints or two quarts. Inwardly let the following balls be given, and repeated two or three times the firſt day (for here no time muſt be loſt) and as often the next, for if a Horſe does not ſtale in thirty hours, his danger muſt be great, and his caſe deſperate. The cure.

Take Juniper Berries pounded, an ounce; Succotrine Aloes, and Sal Prunellæ in powder, of each ſix drams; rectified Oil of Turpentine, or that which comes firſt off the ſtill, called the Etherial Oil of Turpentine, half an ounce; unrectified Oil of Amber, and the Chymical Oil of Juniper, of each two drams; make it up with Liquorice powder; this being

ing too large for one ball, may be divided in two for one doſe.

Let the Glyſter be made with two ounces of *Barbadoes* Aloes; two ounces of Turpentine, beat up with the Yolks of two Eggs; half an ounce of Jallap in powder; Nitre bruiſed, four ounces; Juniper Berries and Bay Berries bruiſed, of each an handful. Let theſe be infuſed in two quarts of a decoction made of Mallows and Marſh-mallows, and add a pint of Linſeed Oil.

If theſe do not remove the complaints, rub the Horſe's Reins with a mixture of Oil of Turpentine and Oil of Amber, *viz.* four ounces of Oil of Turpentine, and two ounces of Oil of Amber, and lay a Cataplaſm over the ſmall of his Back and Kidneys, made of pounded Garlick, Muſtard-ſeed, Camphor, and Green Soap, *viz.* ſix heads of Garlick, a pint of Muſtard-ſeed, two ounces of Camphor, and as much Soap as will be ſufficient to make it into a due conſiſtence. This will penetrate very powerfully, and ſtimulate the Kidneys, in caſe they happen to be benumbed by any diſorder in their nervous parts; and in caſe of inflammation, will even act as a bliſter, without the danger of a Strangury, and in that reſpect alſo do good ſervice. It ſhould be ſpread on a coarſe flannel cloth doubled, and bound on with a warm woolen cloth, and renewed once in two days, till the Horſe comes to ſtale freely; Calomel may alſo be of uſe, in caſe the Kidneys are not ulcerated, *viz.* two drams made up in a ball,

and

and repeated in two days, and after theſe, the Horſe may be purged, to carry off the effects of the Mercury; this is the moſt likely method to prevent ulcerations of the Kidneys: but if both Kidneys ſhould happen to be ulcerated or waſted, when the above-mentioned ſymptoms appear, there can be but ſmall hopes of ſucceſs; for while a Horſe retains the uſe of one Kidney, he may live a conſiderable time in ſome eaſy buſineſs, but will always be in danger, when by any accident the other happens to be affected, as in the following inſtance of a drum Horſe, which may ſerve to evince and illuſtrate the caſe before us.

The caſe of a drum Horſe that was long diſeaſed in his Kidneys.

This Horſe belonged firſt to a miller, where he had been accuſtomed to carry heavy loads upon his Back, by which both his Kidneys had been ſtrained and hurt; he came full-aged into the troop, and continued ſeveral years in it, but every winter was ſo full of eruptions, that his Hair looked as if it had been notched with ſciſſars. Theſe ſymptoms were, in a great meaſure, owing to the diſeaſedneſs of his Kidneys, as appeared afterwards, for he was often ſubject to ſuppreſſions of Urine, and though he was always relieved by proper timely applications, yet theſe grew more frequent as he grew old, till the laſt attack, when he continued three days before he died, without ſtaling or the leaſt diſpoſition to ſtale, during which time he never ſtood wide and ſtradling, as Horſes do when their Bladders are full, and can have no vent, but would move his hind legs and croſs them with great eaſe, till the next day, that his Legs, and af-

afterwards his whole Body, ſwelled, and broke out all over in moiſt watery blotches, notwithſtanding the ſtrongeſt and moſt powerful diureticks were given him, to promote the diſcharges by Urine.

In opening this Horſe, I found nothing remaining of his right Kidney, but a ſmall Schirrus, the bigneſs of a pullet's egg, almoſt oſſified, and of no regular ſhape; the emulgent Veins and Arteries, the Ureters and Veſſels belonging to the Kidneys, were ſhrunk and almoſt dried up; the left Kidney was extremely large, and ſpungy in ſome places, in others ſchirrous and broke into ſeveral ragged interſtices, and ſo mangled that nothing of its true texture remained; ſo that it was impoſſible a ſeparation of Urine could be any longer expected; and for want of this, his external parts were not only bloated and ulcerous, but there were great quantities of water ſeparated, both in his Cheſt and Lower Belly.

I had once a troop Horſe that recovered, with many of the ſame ſymptoms; but, as I had reaſon to apprehend, did not proceed from any previous hurt or injury, but from a Fever that greatly affected his Nerves, by which his Kidneys were probably benumbed and inſenſible. This Horſe could not ſtale, neither did there appear to be any Urine in his Bladder, having no oppreſſion on that part, nor any diſpoſition to ſtale. He ſwelled univerſally, and his Head to ſuch a degree that both his Eyes were ſhut up, and one of his Noſtrils, in the thinneſt part of it, was two or three inches thick. He was

cured

cured of this ſymptom by ſtimulating ſharp diureticks and emollients, and remains ſtill to do his duty after ſeveral years.

Of the STRANGURY.

I SHALL only mention this diſtemper here for order's ſake, having already taken notice of it in treating of the Gripes; this being a ſymptom that generally attends Horſes cholicks of almoſt all kinds, becauſe of the nearneſs of the Neck of the Bladder and the Streight Gut; for when the Guts are full of excrements, or inflated with wind, they are apt to preſs upon the Bladder and cauſe diſorders there. The cauſes of a Strangury.

Every ſtoppage of Urine is generally called a Strangury, whether it proceed from the Kidneys or Bladder; but what I ſhall chiefly conſider in this place is when it ariſes from an Inflammation of the Bladder, a diſtemper Horſes are often ſubject to, or from ſome ſtoppage in the *Urethra* or Piſs-Pipe, as *Snape* calls it. Theſe Horſes make frequent motions to ſtale, without effect, they ſtand wide and ſtraddling, are full, having their Flanks diſtended, often lie down and roll on their Backs, having perhaps pain in their Kidneys and Ureters from their being oppreſſed by the detention of Urine, the Kidneys being at that time hindered and obſtructed in their uſual ſecretions. And when the Bladder, Kidneys, or any of the urinary paſſages are inflamed, a ſymptomatick Fever generally attends, and ſometimes convulſive ſymptoms from extreme pain. The ſigns.

The cure. In this caſe the cure is to be entered upon by bleeding, then let the following drench be given.

Take Venice Turpentine, incorporated with the yolk of an Egg, one ounce; Spermacœti, half an ounce; let theſe be rubbed together, and mixed with ſix drams of Nitre or Sal Prunellæ, in powder, and half a pint of Sweet Oil, with a little white Wine.

Let this be given without delay: and if the Horſe does not get relief, in two hours, from this medicine, it may be repeated, and when adminiſtred two or three times, it will generally remove this ſympton.

When the Stoppage of urine proceeds from matter in the Bladder, derived from the Kidneys, which happens in ſome Colds, or after ſome kind of Fevers; the decoction recommended for ulcerations of the Kidneys, made with the Roots of Marſh-mallows, Sal Prunellæ, Gum Arabick, *&c.* may be adminiſtered with good ſucceſs; for I never obſerved any Stoppages that were unſurmoutable, either in the Neck of the Bladder or Urethra in Horſes, as is uſual in men, from gritty matter, ſtones or ulcers. Theſe are ſo rare, that among the great numbers I have been concerned with, I can remember only one inſtance of a ſchirrous and ſinuous ulcer, or rather cancerous, in the *Urethra* of a Horſe, that ſpread itſelf through a conſiderable part of the cavernous body of the yard, which will be taken notice of under the head of Ulcers. This continued ſeveral years, but was never cured, neither

ther could it admit of a cure from the time I was made acquainted with it.

Of Staling BLOOD.

HORSES are ſeldom ſubject to ſtale Blood, unleſs when they have received ſome ſtrain in their Kidneys, or when ſome Blood-veſſel has been ruptured about the neck of the Bladder, or from ſome ſcorbutick eroſion there, or in the *Urethra*, whereby the Mouths of ſome of the ſmall Blood-veſſels are laid open and ſend forth a bloody Ichor; but when this happens, it is generally very ſmall in quantity, and often goes off without the help of medicines. Theſe accidents may alſo proceed from ſharp rugged ſtones in the Kidneys, Ureters, or about the neck of the Bladder, tho' I imagine, from what I have hitherto obſerved in Horſes, they are not very frequent from this cauſe, but are for the moſt part the effects of very hard labour or other ill uſage.

In this malady the urine is bloody, and ſometimes clear Blood comes away juſt after ſtaling; and therefore, in order to a cure, if the Horſe be fat and luſty, it will be proper to bleed plentifully, but if he be low in fleſh, more ſparingly, after which give the following ball.

Take Conſerve of Red Roſes and Lucatellus Balſam, of each ſix drams; Spermacœti, half an ounce; Sal Prunellæ, and Iriſh Slate, of each two drams; Syrup of Corn poppies, ſufficient to make it into a ball.

This generally cures any Horſe that ſtales Blood, while the diſorder is new, and when the Blood does not proceed from ſome inward ulcer; it may be repeated until the ſymptom goes off, that the Horſe ſtales freely, and without the appearance of Blood. If the bloodineſs of the urine proceed from an ulcer in the Kidneys, Neck of the Bladder or *Urethra*, which may be known by pain and ſtops in ſtaling, and by a purulent ſediment in the urine, it muſt be treated as before directed, and if obſtinate, with mercurials, and ſuch other medicines as ſweeten and attenuate the Blood; of which ſeveral preſcriptions have been given in the cure of the Farcy, obſtinate Surfeits, and other chronical diſtempers.

The caſe of a Horſe that ſtaled Blood.

The moſt remarkable caſe I ever met with of this kind, was of a Troop-Horſe, that happened to be overſtrained in riding a ſmart party, and perhaps at a time when his Bladder was full and wanting to ſtale. When he came home I found him much out of order, drooping, hanging his Head, and off his Stomach, and after ſtaling, voiding ſometimes about a gill, ſometimes about half a pint or more of freſh Blood, which I ſaw ſeveral times lie clotted on the pavement or among his litter. This Horſe was treated with rowelling, bleeding, and the uſe of the laſt mentioned preſcription, which ſoon relieved him, and was repeated till all the ſymptoms were removed. After which ſome mild purges were exhibited, whereby he was enabled to do his duty as uſual. But after two years, upon ſome other hard party, the ſame ſymptoms returned,

but not ſo violent, and were ſoon cured with the uſe of the ſame things.

Of a Diabetes, or Profuſe Staling.

A *Diabetes* is a frequent and profuſe Staling, attended with great weakneſs, loſs of Fleſh, and often with an Atrophy and Decay. *A Diabetes defined.*

Some Horſes are addicted to ſtale more copiouſly than others; and this may proceed from various cauſes. Sometimes it is the effect of a natural delicacy and tenderneſs in young Horſes when they are firſt backed, eſpecially thoſe that want courage, will often ſtale thro' fear, which in time grows into a habit, and becomes difficult to cure. Others fall into profuſe Piſſing from high feeding, eſpecially upon a looſe open diet, drinking too much at a time, and hard riding when their Stomachs are full of water, which brings a load upon their Kidneys, cauſing too plentiful a ſeparation of urine, which ſometimes alſo ends in a habitual Piſſing. But a *Diabetes* is generally the reſult of long continued ſickneſs, old ſurfeits, or the effect of hard riding, hard labour, with low feeding, by which the ſeroſities of the Blood become too much attenuated, and the Horſe, by continual Piſſing, is always craving after water. And when this happens to a Horſe of a weakly conſtitution, it becomes very difficult to remove it. He ſoon loſes both his Fleſh and Appetite, grows feeble, his hair ſtares and his Bones ſtick out; his Eyes look weak and watry; and when it is of a long ſtanding, he grows unfit for all kind of buſineſs. I have ſeen *The cauſes of profuſe Staling.*

ſeveral Horſes with this malady, but they are often incurable, unleſs in the beginning; for if the Piſſing in a true *Diabetes* is not ſoon conquered, it uſually ends in Rottenneſs.

The cure. The cure of young Horſes that are addicted to piſs from fearfulneſs, depends very much upon gentle uſage; for fear is ſo ſtrong an affection in a Horſe, that where it prevails, it is ſeldom overcome by any other means; and if this continues the Piſſing will increaſe, and ſcarce any remedy will be able to prevent its return. If the Horſe be of a tender weakly conſtitution, he ſhould neither be indulged in too much water, nor too much moiſt diet of any kind, eſpecially ſcalded bran and other hot maſhes, which relax the Kidneys; but ſhould rather be kept conſtantly to dry food, unleſs ſome other diſorder ſhould require the Horſe to be kept open: his water ſhould be ſmall in quantity and often, his exerciſe gentle and unconſtrained, till he become more ſettled, and grow more familiar, and then the frequent Piſſing will probably leave him. When the Staling proceeds from any ſudden ill uſage, as too much water and hard riding after it, ſo as to weaken the tone of the Kidneys by throwing too great a load upon them, it may for the moſt part be cured by a contrary treatment; and if the Horſe be luſty, with high feeding and pampering, it will be proper to bleed and give a ſlender dry diet, and to ride him gently after his water; rowelling and purging may alſo help in ſuch caſes.

But if a Horſe has a true *Diabetes*, loſes his appetite and ſtrength, piſſes often and in great quantities;

quantities; if he has had a ſurfeit or any other lingring ſickneſs previous to the other, he ought to be treated with reſtringents, and with a proper mixture of balſamick and aglutinant medicines, to heal and ſtrengthen the Kidneys, ſuch as the following.

Take Conſerve of Red Roſes, two ounces; Lucatellus Balſam, one ounce; Spermacœti and Japan earth or Bole in fine powder, two drams; Diaſcordium, half an ounce; make into two balls, with a ſufficient quantity of Starch, and roll them in Liquorice Powder or Flower.

Let one of theſe be given in the morning, and the other between the Horſe's feeds in the afternoon, and after each about four hornfuls of the following decoction.

Take Jeſuits Bark, bruiſed, four ounces; the Roots of Biſtort and Tormentil, of each two ounces; Gum Arabick, three ounces; Red Roſes, dried, one ounce; boil in two gallons of Lime-Water to the Conſumption of one half, pour off the decoction, and while it is warm diſſolve in it an ounce of Diaſcordium.

Theſe things may be continued ſeveral days; and if the Horſe begins to recover his appetite, and his Piſſing abates, it will then be proper to renew the ſame things, and repeat them for ſome time; theſe ingredients may be boiled over again in the ſame quantity of Lime-Water, adding freſh Roſes; for the Bark will require twice boiling before its virtue can be drawn out.

The Gum Arabick may alſo be renewed, and if the Horſe be of value, a pint of red Wine may be added to the decoction, when it is cleared off. But to a Horſe of ſmall value, a cheaper draught may be made, as this, *viz.*

Take Pomegranate Bark, four ounces; Bauluſtines, two ounces; Red Roſes, one ounce; Biſtort and Tormentil Roots, of each three ounces; boil as the other in Lime-Water, and give three or four hornfuls after each ball.

If the diſtemper be but of a ſhort ſtanding, it may perhaps be ſufficient to allow him every day two quarts of Lime-Water mixed with Bole or Chalk.

His food ſhould be dry and nouriſhing, *viz.* the cleaneſt oats and the fineſt hay that can be got. A few beans or wheat may be now and then mixed with his oats, if his Stomach can digeſt them, and theſe may be ſprinkled with a ſolution of Gum Arabick, *viz.* about two ounces diſſolved in two quarts of Lime-Water warmed. The raſpings of white bread may be boiled in all his water, which is both very nouriſhing and healing, and may have ſome effect to dry up the ſuperfluous moiſture of his Kidneys. Air and exerciſe is alſo neceſſary, but that ſhould be very moderate until the Horſe recover ſome degree of ſtrength, after which his exerciſe may be increaſed at diſcretion.

Sometimes young Horſes have a Swelling in the Sheath, by having of full Liberty with Mares before they are able to cover them; it may

may eaſily be removed in the beginning, by the uſe of warm fomentations made of emollient herbs, &c. but if the ſwelling is hard and inflamed, Bleeding and Purging are both neceſſary, and it may be proper to tie his Yard up to his Belly, making a hole for his Water to paſs thro'.

The mattering of the Yard proceeds ſometimes from the rigidneſs of the Fibres in froſty weather, cauſing an ulcerous diſpoſition, but moſt commonly from a Horſe's having hurt himſelf by being too eager in covering a Mare, whereby, if the Yard happens to be bruiſed, it becomes ſore and ulcerated; if it is taken in time, it may be cured, by bathing the part with Spirits of Wine and Roſe Water, with a ſmall quantity of Honey diſſolv'd in it. Bleeding is exceeding uſeful in this caſe, eſpecially if a Horſe is of a groſs conſtitution, or very full in Fleſh.

CHAP. IX.

Of Surfeits, and other Diſeaſes that affect the Blood and external Parts.

BY a Surfeit is generally underſtood a plenitude, weight and fulneſs of the Stomach, accompanied with ſickneſs, loſs of appetite, inactivity, and great heavineſs, &c. and ſometimes a Fever, as its concomitant; ſo that, in the human body, ſurfeits are often the beginning of Fevers and other diſeaſes, but in Horſes what the generality call Surfeits, are uſually the effects

fects of ſome diſeaſe not attended to or ill cured. For tho' indeeed a Surfeit may often begin with ſome acute ſickneſs, yet it is ſeldom taken notice of as ſuch till it is attended with ſeveral marks and tokens that are viſible to the Eye, that ſpoil a Horſe's complection and looks.

The ſurfeits of Horſes deſcribed.

A Horſe is ſaid to be ſurfeited when his coat ſtares and looks ruſty, when he appears dirty, even tho' no care or pains has been wanting to keep him clean. Surfeited Horſes often have their ſkins ſo full of ſcales and dander, that it lies thick and mealy among the hair, and is conſtantly ſupplied with a freſh ſucceſſion of the ſame kind of groſs matter, from the want of due tranſpiration, and ſo continues till the ſurfeit is cured. Some ſurfeited Horſes have many ſmall hurdles of various ſizes, like peas or tares, which often diſappear when they are brought out of a warm ſtable into the air. Some have little dry fixed ſcabs all over their Bodies and Limbs, which often prove very obſtinate and hard to cure; others are moiſt, and attended with ſuch heat and inflammation, and the humor ſo ſharp and violently itching, that theſe Horſes rub ſo inceſſantly as to make themſelves raw in ſeveral Places, eſpecially about the Neck, Rump, and Hips, and ſometimes their Limbs do not eſcape; and if it affect their Eyes it may induce Blindneſs. Some have no eruptions at all, but only an unwholeſome look, and are dull, ſluggiſh, and lazy. Some appear only lean and hide-bound, with other ſymptoms of a diſordered Blood, others have flying pains and lameneſs, reſembling a rheumatiſm; ſo that

in

in Horſes ſurfeits, we have almoſt all the different ſpecies of the Scurvy and other chronical diſtempers.

The cauſes of Surfeits are various: Horſes often grow ſurfeited with high feeding, and want of due exerciſe, which induces a bad digeſtion, and breeds ill humours. Sometimes Horſes become ſurfeited with unwholeſome food, when it is either rank, or bad of its kind, as too much clover, rye-graſs, muſty hay, and corn, and ſuch like; for ſome foul feeding Horſes will eat muſty ſtinking provender greedily, and fill themſelves full of ill humours, which, by degrees, will bring on many of the ſymptoms obſervable in Surfeits. Sometimes Surfeits are cauſed by hard riding, eſpecially thoſe Horſes that are extremely fat, and have not before had regular exerciſe to harden them, ſometimes by drinking cold water, when hot, ſtanding in a cold air, or being expoſed to the night air, after a Horſe has been kept in a warm ſtable; or after a Horſe's Blood has been much heated and agitated with hard riding, or any other violent labour. Theſe indeed often produce firſt of all, Pleuretick Diſorders, and inward Inflammations, which prove ſuddenly mortal, but if they eſcape death, unleſs great care be taken of their recovery, ſuch Horſes will generally have the ſigns and appearances of a Surfeit, eſpecially that kind which is attended with ſluggiſhneſs and inactivity, and where the Coat looks ruſty and unwholeſome. And indeed many of the diſorders that go under the name of Surfeits, are owing to ill cures. But laſtly, Surfeits are often cauſed

The cauſes of Surfeits in Horſes.

Surfeits often cauſed by imperfect

cures, and by bad and ill prepared medicines.

caused by bad or ill repeated physick; and I have seen some Horses, after taking mercurial purges, break out all over their Bodies, and become quite naked of hair in many places, with all the usual effects of a slow poison.

Surfeits hard to cure when they have been of an old standing.

Surfeits of all kinds are obstinate, and hard to cure when they have been neglected, and suffered to go on a long while without any attempt made to remove them; but when a Surfeit has been but of a short standing, and the Horse in other respects healthful, it is often cured without much difficulty. Those Surfeits are stubborn and dangerous, where a Horse looks with a rusty Coat, and at the same time is hidebound, and soon tires, for these symptoms often betoken an inward decay; if a Horse that has been long surfeited falls off his Stomach, if he coughs often, is thick winded, blows and heaves when he is put to exercise; these are bad signs, and are often incurable. That kind of Surfeit that appears in little dry scabs, that peel off with the Finger, is often obstinate, and greatly disfigures a Horse while it continues, but those eruptions that are hot and itching, that fret off the hair, attended with a hot scalding humour, are not so difficult to cure, except where they return habitually spring and fall, in which case such Surfeits prove obstinate, and grow more so with age.

Surfeits that betoken an inward decay.

It may be necessary here to observe, that some Horses, especially of the strong breed for draught, and also many of our half bred Horses, have somewhat of a surfeited look in winter. But this is only owing to the length and coarseness

of

of their hair; others that are extremely thin ſkin'd, have a ſhort woolly down, or kind of winter Coat, which lies underneath the hair, and gives them a dirty, ſurfeited look, tho' they are at the ſame time in perfect health, and fit for buſineſs. Thoſe who are not thoroughly acquainted with ſuch things, look on theſe Horſes to be ſurfeited, and often bleed, give them purges, and other things to make them coat better, tho' without much ſucceſs; but as they are no leſs healthful than thoſe that carry a better Coat, ſo, in the ſpring of the year, they look as fine and ſmooth as any other, and continue ſo all the ſummer. Theſe Horſes therefore that look well in ſummer, and only look rough in cold weather, with a downy Coat, ought not to be treated as ſurfeited Horſes, nor ſtand in need of much phyſick, for as nature has provided them with warm cloathing for the winter, the beſt way is not to curry them too much, as other Horſes that have ſmooth ſhort hair, for the ſharp teeth and cloſeneſs of the curry comb, fetches off the down in ſuch quantity, and leaves their ſkins ſo much expoſed to the air, that they are apt to catch violent Colds. I have known ſeveral inſtances, where Colds that come in this manner, have been obſtinate and of long continuance; and therefore the beſt way is not to be over curious with ſuch Horſes, nor look upon them as ſurfeited, but to give them good rubbing and bruſhing inſtead of currying, and if the curry comb be at all uſed, to take care that it be an old one that has its teeth blunted and worn, that it may not bring the hair off too faſt.

A neceſſary caution with reſpect to Surfeits.

Cloathing

Cloathing with a ſingle cloth will alſo be ſome help to their looks, and make them ſhed their Coats the ſooner, and may preſerve them from catching Cold; but cloathing is chiefly neceſſary to Horſes that are thin ſkin'd, and have very ſoft hair.

In the cure of Surfeits, I ſhall keep to the common names by which they are uſually known, and ſhall include under the ſame diviſion, the Mange, Farcy, and other diſtempers that affect the ſkin.

Of a Dry SURFEIT.

A dry Surfeit deſcrib'd.

THIS properly includes all thoſe maladies that diſfigure the looks of a Horſe, either thoſe where there are no eruptions on the Skin, or where the eruptions are dry and without moiſture, but continue fixed upon the Skin. For where the eruptions riſe ſuddenly in little lumps of different ſizes, and as ſuddenly diſappear, tho' theſe may indeed be reckoned one ſpecies of a Surfeit, yet it is never accounted ſo in the language of Horſemen, as theſe eruptions happen to Horſes of ſound Vitals, and frequently wear off with bleeding, and a cool opening diet; but when the texture of the Skin is vitiated, and the Blood contaminated, and Perſpiration is obſtructed, a Horſe's looks becomes ſo much diſfigured, and the caſe often ſo obſtinate, that every one concludes ſuch a Horſe to be ſurfeited.

If a Horſe, notwithſtanding theſe ſymptoms, feeds, and does not abate in ſtrength, but goes through

through his buſineſs well, he may be cured by the following method. Firſt take about three pints of Blood, after this let him have the following mild purge, which will work as an alterative.

The cure.

Take Succotrine Aloes, an ounce; Gum Guiacum in Powder, half an ounce; Diaphoretick Antimony, and Powder of Myrrh, of each two drams; make into a ball with Syrup of Buckthorn, and roll it in Liquorice Powder or Flour.

One of theſe may be adminiſter'd for ſome time once a week or once in ten days. In the intermediate days, or the intervals between the purges, two ounces of the following Powders may be given every day, one ounce in the morning, and another in the evening feed.

Take Cinabar of Antimony, or Native Cinabar made into very fine Powder, half a pound; Crude Antimony in fine Powder, four ounces; Gum Guiacum alſo in Powder, four ounces; make theſe into ſixteen Doſes for eight days.

The ſame quantity may be made and repeated till the Horſe comes to coat well, and all the ſymptoms of the Surfeit diſappear. If the Horſe be of ſmall value, two or three common purges may be given of the milder ſort, and inſtead of the Cinabar powders, common Antimony and Sulphur may be mixed twice a day, in the ſame quantity. It will alſo be proper to quench hot Iron in his water, for in moſt dry Surfeits,

For Horſes of ſmall value.

Horſes

Horſes require thoſe things that are proper to warm and invigorate the Blood. If the little ſcabs that lye on the Skin do not peel off, the following ointment may be made uſe of, *viz.*

Take Quickſilver, half an ounce; rub it with two drams, or half an ounce of Turpentine, till the Quickſilver is intirely kill'd and diſappears, then add by degrees a pound of Hog's Lard, rubbing in a Mortar with a Peſtle till the whole is incorporated.

This ointment is to be apply'd where the eruptions are fixed. It will be convenient to keep the Horſe dry, and give him warm water for a week or ten days, during the time of unction, which may be once in three days, or oftner, if it dry in faſt. I have known this ointment alone cure theſe kind of Surfeits, with the help of purging phyſic afterwards.

Of a Wet SURFEIT.

A Wet Surfeit deſcrib'd.

A Wet Surfeit is no other than a moiſt running Scurvy, and appears on different parts of the Body of a Horſe, eſpecially about the Neck, Rump, and Hips, ſometimes attended with great heat and inflammation; oftentimes the Neck ſwells in one night's time, in ſome the Withers, and from thence will iſſue forth great quantities of a hot briny humour; and if care is not taken to allay it, will be apt to make a collection on the Poll or Withers, and produce the Poll-evil or fiſtula. When the humour appears more univerſally on various parts of the Body

Body, it frequently at the ſame time attacks the Limbs, and when it makes a ſettlement there, proves obſtinate and hard to cure, as all ſharp humours are when they fall upon the dependent parts; for by length of time they not only affect the Skin but the Tendons, ſo as to require a continued courſe, both of outward and inward applications. In ſome Conſtitutions of Horſes, theſe kind of eruptions leave a ſort of contagion, that ſhews itſelf every ſpring and fall, with little or no moiſture, but a peeling off the hair from the Neck, Face, and other parts of the Body, but chiefly in the ſpring, about the time of ſhedding their winter Coats. But when this happens, it is generally the effect of ſome neglect or miſmanagement, and I have known it to proceed from mercurial phyſick ill prepared, or injudiciouſly adminiſter'd.

The uſual method of treating a moiſt inflam'd Surfeit dangerous.

When a hot briny humour breaks out on a Horſe's Neck, Withers, or any where elſe, the part commonly ſwells, is hot and inflam'd, and attended with a violent itching. The common method of curing ſuch things is for the moſt part hurtful, as our practitioners ſeldom do more than bleed, and then uſe repellers, as vitriolick and aluminous waters. But the only ſafe way of curing theſe eruptions is by bleeding and purging, and the uſe of coolers inwardly, with a cool open diet. For a Purge,

Purging proper in the cure of Surfeits.

Take Succotrine Aloes, one ounce; Cremor Tartari, and Sal Prunellæ, of each half an ounce; freſh Jallap in powder, one dram, make into a ball, with a ſufficient quantity of Syrup of

Marſh-mallows, and about forty drops of Oil of Amber, and give it after the Horſe's Body has been opened with ſcalded Bran.

Thoſe who chuſe a purging draught, may give the following, which in moſt caſes is preferable to any other, eſpecially where the heat and inflammation is great.

Take Lenitive Electuary, and Cream of Tartar, of each four ounces; of the Pulvis Sanctus, half an ounce; mix theſe in a quart of warm gruel, and give it faſting in the morning.

This liquid Purge will probably work about twelve hours after it is given, whereas the other ſeldom works in leſs than twenty-four hours, except when a Horſe's Bowels are foul, in which caſe, any purge will ſometimes go off ſooner. Either of theſe purges may be repeated three times, or oftner, if they work mildly.

After the purges, let the Horſe have Antimony and Sulphur, of each equal parts, about a ſpoonful a day in one of his feeds; or if the Horſe be of value, Cinabar of Antimony, and Gum Guiacum in powder, may be adminiſter'd in the ſame manner, which will yet prove more efficacious, as theſe things are very friendly to the Blood, and particularly to ſurfeited Horſes.

The method of managing the cure of ſurfeited Horſes, after bad medicines.

The Horſes that become ſurfeited after taking unwholeſome drugs, or mercurial phyſick, require a great deal of care, in order to their recovery, which ought to be gone about as ſoon as poſſible; otherwiſe all endeavours may afterwards prove fruitleſs, when the cure is neglected,

or

or when improper medicines are adminiſter'd; the ſores and blotches occaſion'd by the poiſon turn leprous, and ſometimes will thicken and furrow the Skin, ſo as to cauſe great deformity, with deep chops, from which iſſue forth Blood, or bloody water. Yet nature is ſometimes ſo beneficent to ſuch Horſes, where their conſtitutions happen to be good, that they often recover with good management, after all thoſe untowardly effects. But when the ſmall Veſſels of the Lungs, the Liver, or any of the principal *Viſcera* happen to be hurt, they generally prove incurable; and therefore if a Horſe in this condition coughs much, feeds poorly, falls off his fleſh, and grows hide-bound; unleſs theſe ſymptoms be ſoon removed, with ſoft balſamick medicines, ſuch as have already been preſcribed for colds and diſorders of the Breaſt, with the intermixture of very mild purges, it will be in vain to attempt a cure, becauſe we may, in that caſe, reaſonably ſuppoſe his Lungs to be very much hurt and broke. If he looks dull and heavy, his Eyes and Lips, and the Roof of his Mouth yellow; if he is ſhorth-breathed, ſeems to be full and ſomewhat pot-bellyed, with a ſhort cough upon the leaſt exerciſe; theſe are all tokens of inward diſorder, and, for the moſt part, denote the Liver to be affected; and when they proceed from mercury ill prepared, or from catching cold in the uſe of ſuch things, it will hardly be worth while to endeavour a cure. But if the Horſe feeds well, if he ſhews himſelf ſprightly and vigorous, notwithſtanding any outward foulneſs and deformity; if he does not

flag in his buſineſs, there is great hopes of his recovery, which may be attained by the following method, if it is ſtrictly obſerved.

And firſt of all, if the Horſe is in fleſh, and otherwiſe in good plight, bleed, give him two or three mild purges, ſuch as have been already preſcribed, or the following, which is more particularly adapted to a poiſoned Blood, and will work partly as a purge, and partly as an alterative.

Take the fineſt Succotrine Aloes, ten drams; Gum Guiacum, half an ounce; Diaphoretick Antimony and Cream of Tartar, of each two drams. Make into a ſtiff ball, with a ſufficient quantity of Syrup of Roſes, then add two drams of Oil of Amber, and roll it in Liquorice powder.

This purge may be repeated two or three times, once in five or ſix days, unleſs it ſhould happen to purge violently, which ſometimes falls out when a Horſe's Bowels are foul; in that caſe a little more time is to be allowed. In the intermediate days, *viz.* the days between the purges, let the Horſe have a draught of the following decoction.

Take of the ſhavings or raſpings of Guiacum, two pounds; Turmerick bruiſed in a mortar or cut in thin ſlices, four ounces; freſh Dock Root wiped clean and cut into thin ſlices, one large handful; Chamomile Flowers, half a handful; Liquorice Root ſliced, four ounces; Crude Antimony groſly powdered, and put into

into a bag, one pound. Let theſe be boiled for the ſpace of half an hour or longer, in three gallons of ſpring water, and keep the decoction upon the ingredients in a clean earthen pan for uſe.

This is both a cheap and a very efficacious medicine, in all caſes where the foulneſs of the Skin is owing to bad or ill prepared medicines, eſpecially of the mercurial kind, and may be given to any Horſe, almoſt at diſcretion, eſpecially about four hornfuls in the morning faſting, and the ſame quantity about two hours before he has ſupped, or at night. It will ſweeten the Juices and render the Blood more ſoft and balſamick; but requires to be continued two or three months in obſtinate caſes, allowing ſometimes a week's interval, that the Horſe may not be cloy'd with continual drenching. It will be little or no charge to the owner, and there is alſo this advantage in the uſe of theſe things, that they will be no hindrance of his exerciſe, or any buſineſs the owner requires of him.

The ſhavings or raſpings of Guiacum, may be had at the druggiſt's or the working wood-turner's; the Antimony ſhould not be ſuch as is generally ſold in the ſhops, *viz.* that ſort which is melted down, and caſt in a pyramidical form, and is often full of droſs, the genuine being clear and ſhining, of the colour of poliſhed ſteel, and will anſwer the end more effectually than the other.

Some Horſes are very ſhy, and take their drinks with great reluctancy, which is inconvenient where it is neceſſary to repeat them often. When this is the caſe, the Crude Antimony or

Liver of Antimony in their feeds may do good ſervice; but it will be ſtill more efficacious in all Surfeits, if Gum Guiacum be mixed with the Antimony, as I have found from experience, in the following manner, *viz.*

Take of the beſt Antimony made into a very fine powder, and Gum Guiacum in powder, of each a pound; mix them well together in a large mortar, oiling the end of the peſtle to prevent the Gum from caking; then divide the whole into thirty-two doſes, *viz.* an ounce in each doſe, and let one be given every day in the evening-feed.

This will tend greatly to rectify a ſurfeited Horſe's Blood and Juices, will open his hide, make him coat well, and give him a wholſome look, and very much help to remove the ill effects of mercurial medicines; but if the Horſe be of value, the Cinabar of Antimony may be uſed inſtead of the Crude Antimony; and though it may be ſomewhat more chargeable than the other, yet I have often obſerved it to be of more quick efficacy, which in a great meaſure, makes amends for the expence, *viz.* Cinabar of Antimony and Gum Guiacum, mixed as above, and adminiſtred in the ſame manner; or recourſe may be had to the compounded powders above preſcribed made of Cinabar of Antimony, with the Crude Antimony or Liver of Antimony, &c. all which things being efficacious in the moſt kinds of ſurfeits, eſpecially thoſe that proceed from unwholſome diet, unwholſome drugs, or from ill-prepared medicines, given in the

the Farcy, are alſo proper in obſtinate Surfeits; but in the cure of Surfeits, regard muſt always be had to the original diſtemper, from whence it has taken its riſe, according to the directions already laid down; but if the ſymptoms of a Surfeit proceed from any hereditary cauſe, it will be difficult to remove them, ſo as to have no return.

In the cure of Surfeits, a great deal may be done by proper diet and exerciſe; if the Horſe be ſtrong and vigorous, and feeds well, he may have all his accuſtomed exèrciſe; but if he be a poor feeder, and apt to turn faint and dead-hearted, his exerciſe muſt be gentle. The ſame rule may be obſerved if he coughs much, and is any ways defective in his wind; nevertheleſs theſe Horſes ought to be often in the open air, and have their exerciſe proportioned to their ability, for nothing ſo much ſtrengthens and invigorates the blood as the air and exerciſe, which will alſo help the operation of their medicines, and render them more effectual. Their diet ſhould be cool and opening, while there remains any foulneſs of the Skin, ſuch as ſcalded bran, but eſpecially ſcalded barley, once a day, and if the Horſe be Hide-bound, I would adviſe an ounce of Fœnugreek Seeds to be given daily in one of his feeds, to be continued the ſpace of one month longer, if it be neceſſary. But I ſhall here take ſome notice of what is meant by the binding and cloſeneſs of the Hide.

A proper diet for ſurfeited Horſes.

Of Hide-bound HORSES.

Hide-bound Horſes deſcribed, with the uſual cauſes that produce that malady.

A HORSE is ſaid to be Hide-bound, when his Skin ſticks ſo cloſe to his Ribs, that it ſeems immoveable; but this is not to be accounted an original diſeaſe, but only a ſymptom, which may either be cauſed by want of ſufficient food, or from harraſſing Horſes beyond their ſtrength, without allowing them ſufficient time for reſt, and neceſſary refreſhments. Sometimes Horſes grow Hide-bound very ſuddenly from Fevers, and convulſive diſorders, and if that ſymptom is not ſuddenly removed, the diſtempers that are the cauſe of it generally prove mortal; but nothing is more common than to ſee ſurfeited Horſes alſo Hide-bound; and therefore in the cure of all Hide-bound Horſes regard muſt be had to the original diſtemper from whence it proceeds. I have obſerved in Fevers, and convulſive diſorders, where there was great pain, Horſes become Hide-bound, and ſtrangely tucked up in a few hours, and that ſymptom as ſuddenly removed by care, and proper applications; but when a Horſe is full of Fleſh, and has no viſible appearance of ſickneſs, and appears at the ſame time to be Hide-bound, it is often the effect of ſome long continued inward diſorder, which ought to be examined into, whether it be in the Liver, Kidneys, or Lungs; but eſpecially if it proceeds from vermin in the Guts: for thoſe who have had experience may have often obſerved this ſymptom, when they have been carefully purged, and have thereby

The manner how hide-bound Horſes are to be treated.

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diſcharged great quantities of the ſmall White Worms called *Aſcarides*; therefore, in all theſe caſes, whatever ſtrikes at the cauſe, effectually removes that ſymptom. And though a Horſe feeds well, keeps his Fleſh, and goes through his buſineſs, and yet continues Hide-bound, nevertheleſs he ought to be regarded, otherwiſe this ill habit of body will at length be able to produce ſome untowardly ſymptoms, which in the end may prove fatal. In this caſe I would adviſe purging in the following manner, *viz.* give over night two drams of Calomel, made into a ball with Conſerve of Roſes, and the next morning the following purge, *viz.*

Take Succotrine Aloes, an ounce, or ten drams, if the Horſe be ſtrong; freſh Jallap in fine powder, two drams; Myrrh, half an ounce; make it into a ball, with Syrup of Buckthorn, adding ſixty drops of oil of Savin.

This purge and the mercurial ball, may be repeated three times in three weeks, and afterwards the Cinabar or Antimonial powders, as above preſcribed, which will be the likelieſt way to recover any ſuch Horſe from the dangers that threaten him; and if Worms be the cauſe, this method will ſoon relieve him.

Horſes that become Hide-bound by ſtarving or hard uſage, need only reſt, and better keeping. The feeding in ſuch caſes ought to be gradual, that is, increaſed by degrees, according to the rules laid down in the method of dieting, and elſewhere.

Of

Of Molten Grease.

MOST of the writers in Farriery, have reckoned the melting of the Greaſe as an original diſtemper in Horſes, though few of them have offered any definition of it, or the ſymptoms that appear in it, but have for the moſt part, only given ſome inſignificant receipts for the cure of it. They have indeed aſſigned one general cauſe for Molten Greaſe, *viz.* hard riding, or any other violent exerciſe, but have laid down no other ſymptom, but ſwelling of their Limbs, or greaſy dung; which however will happen to Horſes from foul feeding, and to ſome from the natural conſtitution of their Blood and Juices, where no violence has been uſed. That there is ſuch a thing as melting of the Greaſe, is pretty evident from what may be obſerved of ſome exceſſive fat Horſes, that have been worked in hot weather, and have died raging mad of Fevers; in which caſe the fat is melted and turned into an oil, and is drawn off from its proper cells into the Blood-veſſels, of which I have elſewhere given a very extraordinary inſtance. But as this is ſeldom underſtood for Molten Greaſe, but paſſes under the denomination of a Fever or the Staggers, which often proves mortal, eſpecially in the hands of ignorant perſons; I ſhall therefore proceed to thoſe caſes which are uſually aſcribed to Molten Greaſe, which, when neglected, often produce many of the ſymptoms that paſs under the name of Surfeits.

Fat Horſes liable to have their Greaſe melted.

When

The uſual notions concerning molten Greaſe.

When a Horſe voids greaſy matter along with his dung, his Greaſe is ſaid to be melted; but it may be obſerved, that this ſymptom proceeds from various cauſes; ſometimes very fat Horſes, that ſtand much in the ſtable, and have but little exerciſe, will void greaſy matter along with their dung upon catching the leaſt cold; but this is only a natural ſecretion, and is not attended with thoſe inward perturbations that muſt unavoidably happen where the Greaſe is really diſſolved and melted. Some Horſes of hot conſtitutions, that are inclined to coſtiveneſs, ſometimes grow over-charged, and void great quantities of ſlimy matter, like corruption, and the balls of dung are covered with a pellicle or ſkin; and when this happens, ſuch Horſes are ſaid to have their Greaſe melted, though very improperly, this being no other than a common ſymptom that always attends a retention of the dung; and when they void a matter of the colour of Sulphur, it is a ſure ſymptom of Worms. There are other Horſes of weak Bowels, that often void a looſe ſlimy dung, and ſome are apt to conclude theſe have had their Greaſe melted, but this is only the effect of a ſizy Blood; but the ſwelling of the Limbs, and the running at the Heels, ſometimes a briny ſalt humour, ſomewhat of an oily conſiſtence, or a thick white matter like melted tallow, called the Greaſe, has no relation at all to that diſtemper, but when there is ſome manifeſt tokens that the Horſe's Greaſe has been previouſly melted by ſome hard uſage; for we often ſee lean Horſes of poor ſizy blood, as much troubled with

with theſe ſymptoms, as any other. But this will be treated of more fully, when I come to diſcourſe of ſwelled Legs and greaſy Heels.

Now the true ſymptoms of Molten Greaſe may be diſcovered by the following obſervations; and in the firſt place, no Horſe can eaſily have his Greaſe melted, unleſs he be ſomewhat overcharged with fat; neither can a fat Horſe have his Greaſe melted in any degree, without violence, eſpecially by hard riding or working in very hot weather; for the oilineſs that we often obſerve in the dung of very fat Horſes, eſpecially if a ball of his dung be thrown into cold water, proceeds only from a ſuperabundance of oily particles in his Blood, which are more or leſs diſcharged by all the groſſer ſecretions. But when a Horſe's Greaſe is really melted, it is always accompanied with a Fever, with heat, reſtleſsneſs, ſtarting tremors or tremblings, great inward ſickneſs, ſhortneſs of Breath, and ſometimes with the ſymptoms of a Pleuriſy; and theſe ſymptoms are more or leſs aggravated according to the previous ſtate of the Horſe, or the degree of violence in the treatment he has met with. His dung will then be extremely greaſy, and will fall into a Scouring, not unlike the greaſy Diarrhœas that happen to men in ſomewhat of the like circumſtances. His Blood will have a thick ſkin of fat over it, when cold, of a white or yellow hue, but chiefly the latter, from the obſtructions that uſually happen in the Liver in ſuch caſes. The congealed part or ſediment is commonly a mixture of Size and Greaſe, which makes it ſo ex-

The true ſigns of molten Greaſe.

ceeding ſlippery, that ſcarce any part of it will adhere to one's fingers, and the ſmall portion of ſerum that is in it, feels alſo ſlippery and clammy, not unlike the juice of apples. The Horſe ſoon loſes his Fleſh, the fat that fills the Interſtices of the Muſcles being probably diſſolved and ſucked up into the Blood-veſſels, and thoſe Horſes that ſurvive ſuch a ſhock commonly grow Hide-bound for a time, and their Legs ſwell both before and behind, and continue ſo till the ſtate of their Blood is altered and mended by proper applications. And if this is not done effectually, the Farcy, the Glanders, or ſome obſtinate Surfeit generally follows, that will be difficult and hard to cure. To avoid theſe unhappy effects of Molten Greaſe, I ſhould adviſe the following method.

The cure of molten Greaſe.

In the firſt place it is neceſſary to bleed plentifully to empty the Blood-veſſels, which are generally crammed, and in the ſmall Capillary Veins almoſt to a total ſtagnation. This ought to be repeated two or three days ſucceſſively, and here plenty of rowels or iſſues are of great uſe, one in the Breaſt, one in the Belly, as ſoon as the agitation and working of the Flanks begins to abate, and one on the inſide of each Thigh. As to internals, Glyſters are of great ſervice, which ought to be rather of the emollient kind, than purgative, rather to cool the inteſtines than to cauſe heat and irritation; and all the other internals ought to be cleanſing, attenuating, and opening. For a Glyſter,

Take Mallows and Marſh-mallows, of each a handful; Chamomile-Flowers, half a handful; ſweet

ſweet Fennel Seeds and Cumin Seeds, bruiſed, of each two ounces; Bay Berries, bruiſed, an ounce; boil theſe in three quarts of water, or two quarts, in a covered veſſel; and when it is of a proper warmth pour off the decoction, and diſſolve in it ſix ounces of Lenitive Electuary, and half a pint of Linſeed Oil, and give it blood-warm.

Emollient glyſters abſolutely neceſſary.

This Glyſter, or Glyſters that are contrived after this manner, are proper to Horſes that have their Greaſe melted. They will help to abate the Fever, and drain off from the Inteſtines great quantities of greaſy matter, and by that means aſſiſt the operation of things given by the Mouth, which ſhould be ſuch as attenuate and thin the Blood, and at the ſame time keep the Belly ſoluble and open. For this purpoſe,

Take Rue and Scordium, of each a handful; Bay Berries bruiſed, and Chamomile Flowers, of each an ounce; Saffron, two drams; infuſe in a quart of boiling Water, and when the infuſion has ſtood twelve hours, pour it off, and diſſolve in it ſix ounces of Cream of Tartar, and add to the whole half a pint of white Wine, and give it milk-warm, at any time of the day, if the Horſe does not feed; but if the Horſe feeds, in the morning faſting.

This drink may be repeated every other day, and the Glyſter every day, till the Horſe begins to look briſk, and feeds. And at the ſame time let him have plenty of warm water or wa-

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ter-gruel to drink, to dilute and thin his Blood, and prevent coagulation; for the Blood in all ſuch caſes eaſily runs into greemes, and indangers a total Stagnation.

When the Fever is gone quite off, and the Horſe has recovered his appetite ſo as to feed plentifully, it will be proper to finiſh his cure with mild gentle purges of the aloetick kind, eſpecially if his Legs ſwell, which is uſual in ſuch caſes.

Take the fineſt Succotrine Aloes, one ounce; Diapente, ſix drams; Saffron, carefully dried and powdered, one dram; make it into a ſtiff paſte with ſyrup of Buckthorn, adding a ſmall ſpoonful of Oil of Amber.

Purging neceſſary to bring down the ſwelling of the Limbs.

One of theſe purges may be given every week, and continued for a month or ſix weeks; which method will bring down the ſwelling of his Legs more effectually than by giving ſtrong purges, which often by their violence and harſh operation, break down the conſtitutions of the ſtrongeſt Horſes, and render them liable to many infirmities and diſorders. I have always found by experience, mild purges the moſt efficacious in moſt of the maladies where purging is neceſſary, and I have often met with great ſucceſs in adminiſtring thoſe that are no more than alteratives, where the purgative ingredient has ſeldom exceeded half an ounce or ſix drams of the fineſt Aloes, which only opens their Bellies, and makes their dung ſoft and looſe; but by entring more into the Blood, are more permanent in their effects. And whoever follows this method,

thod, may obſerve, that at the ſame time, the Horſe may perhaps purge but little, he will ſtale plentifully; he will alſo perſpire more freely, that his Skin will have a kindly feeling; and I have found many Horſes that before were poor feeders, and would have probably gone to the dogs with ſtrong purges, recover their appetite with theſe, ſo as to feed heartily, and ſoon be able to go through any manner of fatigue. Theſe purges may be repeated at pleaſure, *viz.* one in eight or ten days, with this benefit alſo to the owner, that they will ſeldom take him off his buſineſs above two or three days in a week, neither will he loſe his fleſh or his appetite, but will mend in both, which cannot be ſo well obtained by any other method of purging. But having already mentioned the advantages elſewhere ariſing from this kind of treatment, I ſhould not have repeated any thing further here on that ſubject, only that I may venture to ſay, that no caſe requires it more than where there is a ſuſpicion of Molten Greaſe, to carry off the dregs and recrements that may be left in the Blood by ſuch an extraordinary diſorder.

As to the other caſes above-mentioned, that reſemble thoſe where the Greaſe is melted, ſuch as proceed from high feeding and want of ſufficient exerciſe, from Colds and common Fevers, from eating great quantities of green dried clover, new hay, or any other kind of diet that may cauſe obſtructions in the Guts; ſuch as have their Legs ſwell and break out into a running, ſome of theſe have been already treated of, and others will be handled in the progreſs of this work.

Of the MANGE.

THE Mange is ſo well known, that it ſcarce needs a deſcription. Nevertheleſs the *French* and ſome other foreign writers on the Diſeaſes of Horſes, and many of our own practitioners ſometimes miſtake hot itching eruptions for the Mange, and by that means often fail in the cure, or at leaſt render it both very tedious and troubleſome. Miſtakes concerning the Mange.

At firſt the Mange is ſeldom ſeated deeper than the ſurface of the Skin, and may be eaſily cured before it has been of continuance long enough to vitiate and pollute the Blood. It generally comes by infection from other Horſes, and is ſo very catching, that a Horſe will ſcarce eſcape if he happens to be ſet up in a ſtable where a mangy Horſe has ſtood, before it has been well cleaned and aired. The Mange alſo proceeds from ſtarving and low feeding, and happens often to Horſes that have run long abroad in pinching cold weather, without graſs or ſufficient provender to ſupport them. For when a Horſe once becomes poor, the Blood and Spirits do not flow in ſufficient quantity to the extremities of the Skin, ſo as the neceſſary ſecretions may be made, by which means a ſtoppage of the inſenſible Tranſpiration in ſome degree muſt alſo follow, the juices in thoſe parts growing ſharp and pungent, create a perpetual tingling and itching. And altho' this tingling and itching is always conſtant in the The cauſes of the Mange.

Distinguished from other itching eruptions.

Mange, yet it is not so violent and painful as the smart and itching that attends some of the Surfeits above described. Those disorders being not only seated deeper in the Skin, but sometimes spreading their influence below upon the membranes that cover the Muscles, which render the pain and all other sensations more acute and violent.

A mangy Horse described.

In the Mange the Skin is generally tawned, thick and full of wrinkles, especially about the Main, the Loins, and Tail, and the little Hair that remains in those places almost always stands streight out and bristly. The Ears of mangy Horses are commonly almost naked and without any Hair, and all about their Eyes and Eyebrows, which gives them a dismal carrion-like look. And where it affects the Limbs, it makes them in many places look quite naked, but yet without peeling and rawness, as in those kind of Surfeits where the Blood is very hot and inflam'd.

The Mange seldom happens but to ordinary neglected Horses, and if it be let alone without taking some care to free them of it, will at last induce an universal depravity of the Blood and Juices, and become tedious, if not altogether incurable; but when taken in time nothing is more easy, especially when it comes by infection, for that which proceeds from starving is always more rooted, and consequently more tedious, and a Horse seldom recovers perfectly till he takes on a competent measure of Flesh.

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If the Horſe has been in good keeping, and catched the diſtemper of another Horſe, or in an infected ſtable, in that caſe it will be proper to begin with bleeding, and a gentle purge or two will not be amiſs. Let him have an ounce of Antimony and Sulphur, of each equal quantities, every day in a feed of ſcalded or moiſten'd bran, to be continued three weeks or a month. Sometimes the Mange is cured by outward applications alone, without any thing internally, only by ſteeping tobacco in old Chamber-lye about twenty-fours, bathing all the mangy parts with it every day till the Horſe is well, and when the diſtemper is not very inveterate, this is to be prefer'd to daubing ointments. Some cure it with Train Oil, and Gunpowder made into the conſiſtence of a ſoft liniment; others add to this Black Pepper, Spirit of Wine, and a ſmall quantity of Oil of Turpentine, to give it a body, and to make it adhere more cloſely to the Skin. Some uſe Gunpowder and *Barbadoes* Tar made into an ointment, with a mixture of Black Soap. And I have known the country people cure the Mange both in their Horſes and Dogs, with ſalt Beef Brine; all which things are often attended with ſucceſs in new infections; but if the diſtemper has taken deep footing, and the texture of the Skin become thereby very much corrupted, and broke ſo as to have a tendency to a Leproſy, it will be neceſſary to have recourſe to mercurials both externally and internally, and for that purpoſe, The cure.

Take of any of the common Horſe balls above preſcrib'd for Colds, the quantity of a Walnut; Calomel finely prepared, two ſcruples; mix them together, and let it be repeated three mornings, keeping the Horſe-faſting two hours before, and two hours after each Ball.

The Horſe muſt be kept warm, have warm water, and not ſuffered to go into the water, or to be wet on any part, nor go out of the ſtable if the weather be foul, unleſs into a dry riding houſe, or under ſome cover for his exerciſe. Give every day a feed of ſcalded bran, and the morning after the laſt ball let him have a common purge, or this, which is as proper as any in the Mange, or in any other caſe where the Skin happens to be foul.

Take Aloes Succotrine, ten drams, or of common Aloes, an ounce; Diaphoretick Antimony, half an ounce; freſh Jallap in fine Powder, one dram; make it into a ball with a ſufficient quantity of *Barbadoes* Tar, adding ſixty drops of chymical Oil of Anniſeeds.

This may be repeated two or three times, applying outwardly at the ſame time the Train-Oil and Gun powder, which in moſt caſes is both very proper and efficacious, the Gun-powder being no other than a compoſition made chiefly of Sulphur, Salt-petre, and Charcoal, and thoſe who diſlike the Train-oil, may uſe Butter, or Hog's Lard inſtead of it, with a mixture of Spirit of Wine, which, by rubbing it ſome time

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in a mortar, will be ſufficiently incorporated for an outward application. But if this ſhould not prove effectual, the mercurial ointment preſcrib'd in the preceding chapter may be uſed with the precautions there laid down, *viz.* keeping the Horſe warm, and giving him warm water all the time till he is effectually cured.

If the Mange has been contracted by low feeding and negligence, the Horſe muſt be more indulged both in hay and corn, yet not ſo as to cloy and ſurfeit him. It will likewiſe be neceſſary to cloath him, but not to keep him too hot, for that would be going to an extream, that would be injurious and hurtful to a Horſe that had been much accuſtomed to the cold, beſides very hot cloathing is apt to increaſe and give freſh fuel to this diſtemper. In this caſe however, cloathing and a better diet contributes very much to the cure, as it helps to increaſe perſpiration; ſo that there is ſeldom any thing further wanting, beſides ſome outward application, tho' this kind generally proves the moſt tedious, becauſe the Mange will ſeldom wear off till the conſtitution mends, as has been already obſerved.

After a Horſe has got clear of this diſtemper, his ſtanding ſhould be waſh'd clean with ſoap ſuds, and his ſtable fum'd with burning pitch, or with charcoal. If his cloaths are too good to be deſtroy'd, they ſhould be ſoak'd in ſcalding water, and waſh'd clean, and carefully dry'd; which precautions will be neceſſary to ſecure other Horſes from the infection.

Of the FARCIN, or FARCY.

THE *French* and *Italians*, and moſt of our own writers copying after them, have injudiciouſly reckon'd up five or ſix different kinds of Farcys, and claſſed along with this malady, ſeveral of thoſe ſcorbutick caſes I have treated of in the preceding ſections, which, altho' they are indeed obſtinate, and hard enough to be cured, yet have none of them the effects of a true Farcy. That which they call the flying Farcy, riſing in little lumps about the ſize of hazle nuts all over the Body of a Horſe, and which ſuddenly diſappear in one place, and as ſuddenly ſtart up in another, are nothing at all but the heats that ſometimes in the ſpring, break out on thoſe Horſes that have been full fed, been kept long at dry meats, and have had but little exerciſe, which often creates an acrimony and ſharpneſs, that burſts through the Skin with heat and inflammation. The eruptions that appear like dry corns, and ſpread themſelves all over the Breaſt, Neck, Back and Loins, and the ſmall fleſhy hurdles which lye dead in the Skin, with little or no itching, without coming to any maturity, are alſo accounted by ſome as a ſpecies of the Farcy, but improperly, for tho' theſe may continue ſo long upon a Horſe, as to hinder him from thriving and looking well, yet they have not the leaſt tendency to a Farcy, and ſeldom or never ſuppurate and turn into matter, but wear off inſenſibly and by degrees, and without any ill conſequence, when they happen to be rightly managed.

Miſtakes concerning the Farcy.

managed. Neither have thoſe ſoft watry tumors, that riſe in ſeveral parts of the Body of a Horſe, which our writers call the Watry Farcy, any direct relation to that diſtemper, but are only an effort of nature to carry off ſome acute ſickneſs. Beſides all this, they have accounted the various ſymptoms, that uſually riſe in this diſtemper, and the different aſpects and appearances of the ſores and ulcers, as ſo many different ſpecies of the Farcy: all which are very erroneous, as will be ſhewn hereafter.

The Farcy deſcrib'd.

But the true Farcy is properly a diſtemper of the Blood-Veſſels, that generally follows the tract of the Veins, and when inveterate, thickens their Coats, and common Integuments, ſo as they become like ſo many cords, and theſe are larger or ſmaller, in proportion to the ſize and capacity of the Veins that are affected by it. It is ſeldom perceiveable on the arteries, becauſe of their continual motion and pulſation, and likewiſe by reaſon of the ſpring and elaſticity with which they are endowed, which no doubt, prevents the Juices of the arterial Coats coming to a Stagnation; whereas the Veins being more looſe and flaccid, and having no natural action of their own, but that which is cauſed by the pulſation of the Arteries, that lye underneath or near them, or by the Action of the Muſcles in their common exerciſe, muſt therefore be more eaſily affected, when once their Coats become replete with acrimonious ſharp Juices.

The cauſes of the Farcy.

This I take to be the true nature of the Farcy, and the cauſe of the Veins being ſo much corded, which renders the cure ſo difficult and

troubleſome. As for the more remote cauſes thereof they are various, proceeding from many of the ſame errors that bring on Surfeits, and other chronical diſeaſes, *viz.* drinking cold water when a Horſe has been heated with hard exerciſe, or cooling ſuddenly after exerciſe, over working Horſes in hot weather, cauſing an over great expence of the ſerous parts of the Blood; if a Horſe that has been thus uſed eſcapes a Fever, he may readily enough fall into the Farcy, or if he chances to be ſeized with a Fever, ſuch a Fever may end with a Farcy, or ſome obſtinate ſurfeit; but from what I have obſerved of this diſtemper, I take the moſt uſual cauſe to proceed from a crude or unwholſome diet, *viz.* eating new oats, new hay, clover, and rye-graſs, which things however, are much more hurtful to ſome Horſes than to others. Too great a quantity of food in proportion to a Horſe's exerciſe, altho' it be good in its kind, may alſo produce the Farcy. Reſtraining Horſes too much from water in hot weather, when they require it moſt to dilute and keep their Blood in a fluid ſtate, eſpecially thoſe Horſes that have a plentiful allowance of hay and oats. And as the Farcy often proceeds from repletion and fulneſs, by overſtretching and relaxing the Veſſels; ſo it alſo takes its riſe ſometimes from ſtinting Horſes too much in their food, but eſpecially from feeding irregularly, ſtarving them at one time, and glutting them at another; all which things tend greatly to deprave the Blood and Juices, which by degrees bring on ſuch diſtempers. Wounds with very ſmall, and pointed

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inſtruments, ſuch as ſharp ſpurs, ſharp ſplinters of hard wood, or any thing elſe that makes a puncture in the Coats of the Blood-veſſels; eſpecially when the previous ſtate of the Blood happens to be bad. And ſometimes the Farcy may proceed from infection, when it happens to be a ſickly time among Horſes, or when it is epidemical; however this is but ſeldom, for the Farcy in the common way is rarely infectious, or any ways hurtful to other Horſes, as we ſee by daily experience.

As to the ſigns of the Farcy, they are pretty manifeſt to the eye, and generally well known; at firſt one or more ſmall tumors, or round buds, like grapes or berries, ſpringing out over the Veins, and very often exquiſitely painful to the touch; in the beginning they are hard, but ſoon turn into ſoft bliſters, which, when broke, diſcharge an oily or bloody ichor, and turn into very foul and ill-diſpoſed ulcers. The ſigns.

In ſome Horſes it appears on the Head only; in ſome on the external Jugular or Neck Vein; in others, on the Plate Vein, and runs downward, on the inſide of the Fore-Arm towards the Knee, and very often upwards towards the Briſket; in ſome the Farcy ſhews itſelf firſt on the hind parts, about the Paſterns, and along the large Veins on the inſide of the Thigh, riſing upwards into the Groin, and towards the Sheath; and ſometimes the Farcy makes its firſt appearance on the Flanks, and ſpreads by degrees towards the Lower Belly, where it often becomes very troubleſome.

When

When the Farcy appears on the Head only, it is eaſily cured, eſpecially when it is ſcaled on the Cheeks or Fore-head, where there is little or no ſubſtance of Fleſh, and the Blood-veſſels very ſmall; it is rather more difficult, when it affects the Lips, the Noſtrils, the Eyes, and Kernels under the Jaws, and other ſoft and looſe parts, eſpecially if it continues ſo long till the Neck-vein becomes affected by it, and turns corded. When it begins on the outſide of the Shoulder, or on the outſide of the Hips, the cure is ſeldom difficult, becauſe the Blood-veſſels on thoſe parts, are not only ſmall, but are well-braced, and by their ſituation kept in a kind of continual tenſion, which very much contributes to the removal of the obſtructions in the coats of the affected Veins, and this is further helped by the action of thoſe parts. But when the Farcy riſes firſt on the Plate-vein, and if that Vein ſwell much and turns corded, it proves ſometimes troubleſome enough, eſpecially if the diſtemper increaſes, ſo as to affect the axillary Glands or Kernels under the Armpits, it then becomes ſomewhat difficult and hard to cure: but the difficulty is yet greater, when the crural Veins on the inſide of the Thigh are corded, and beſet with buds, when it riſes upwards and affects the Inguinal Glands, *viz.* the Kernels of the Groins and the cavernous body of the Yard, which often happens, the cure will not only prove difficult but tedious. When the Farcy begins on the Paſterns or lower Limbs, it often becomes very uncertain, and of doubtful iſſue, unleſs a timely ſtop be put to it,

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and though a Horſe may indeed eſcape with his life, yet the ſwelling in thoſe dependent parts, grows ſo exceſſively large, in ſome conſtitutions, and the Limbs ſo much disfigured thereby, with foul ſores and callous ulcerations, that ſuch a one is ſeldom fit for any thing afterwards, but the meaneſt drudgery. But it is always a promiſing ſign, wherever the Farcy happens to be ſituated, if it ſpreads no further.

It is uſual for the Farcy to begin only on one ſide of the body, but when it paſſes over to the other, for inſtance, from the near ſide to the off ſide, or from the off ſide to the near, it ſhews it is either of a malignant kind, or that it is very far gone, and becomes doubtful as to the cure; but when it riſes on the Spines of the Back and Loins, it is then for the moſt part dangerous, unleſs when its firſt appearance has been on the Shoulders or Hips, for in that caſe the anguiſh ſometimes reaches to thoſe parts without much hazard, and is often cured with little or no trouble. The Farcy is always more dangerous to Horſes that are fat and full of Blood, than to thoſe that are in a more moderate caſe; though to a very lean Horſe, that has been extremely hard worked, it is ſometimes dangerous; but when a Horſe has been ailing for ſome time before, and feeds poorly; if he is inwardly unſound, if a purging comes upon him, and continues without abatement, but rather increaſes; if the infection has ſpread itſelf near the large muſcular interſtices, that produce freſh ſwellings, and large abſceſſes, the Farcy in theſe circumſtances, will make a quick riddance and

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prove fatal. When the Farcy is epidemical, as ſometimes happens, it riſes on ſeveral parts of the Body at once, and on both ſides, firſt upon the principal Veins, but ſoon changes and forms naſty foul ulcers between the interſtices of the Muſcles, inflates and ſwells the Emunctories and Kernels about the Neck and Throat, brings a profuſe running of greeniſh and bloody matter at both Noſtrils, with a cadaverous carrion-like ſmell, and ſoon ends in a moſt miſerable Rot. But this is properly a peſtilential diſtemper, tho' it may have ſome of the ſymptoms of the Farcy in the beginning, and at laſt of the Glanders; and if there was any hopes of a recovery, ought to be treated as a plague or murrian.

Specifick remedies of little uſe in the Farcy.

By what has been here obſerved concerning the Farcy, it will appear, that thoſe may be greatly diſappointed who depend on ſome ſingle ſpecifick drink or ball for a certain cure, though nothing is more common and uſual; for there is ſcarce a gentleman who keeps any number of Horſes, that has not ſome favourite receit for the cure of the Farcy, which has been recommended as infallible. I have had many of this kind communicated to me, ſome of which that were the moſt likely to ſucceed, I have made trial of, more out of regard to the owners, whom I was willing to oblige, than from any great opinion I had of ſuch things, for after ſufficient trial of them, I have been forced to leave them off, and have recourſe to a more rational method; and indeed, no medicine in the world, whatever ſpecifick virtues it may be endowed with, can anſwer in all caſes, and but ſeldom

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in any, without ſome right conduct and management in the uſe of it; this is plainly manifeſt in the Peruvian or Jeſuit's Bark, which perhaps is the greateſt ſpecifick that has ever been known in intermitting diſtempers; and yet there are many caſes of this kind where the Bark is abſolutely hurtful, and ſome, where the Bark alone will not anſwer without correctors, and other proper helps; and even where this is given, the time muſt alſo be regarded, for if it be adminiſtered unſeaſonably, as in a fit or paroxiſm, or very near it, this excellent medicine, if the patient receive no hurt by it, will at leaſt loſe a good deal of its effect.

The Farcy eaſily cured where the ſymptoms are favourable.

Now the ſymptoms of the Farcy are ſometimes ſo favourable, that it is eaſily conquered by a very plain and ſimple management, and when it riſes ſuperficial upon the ſmaller veſſels, it will often go off with moderate labour, without the uſe of any other means, either external or internal, beſides bleeding. Some inſtances of this kind I have known, and have been told of others, where Horſes have got clear of the Farcy by going to plow and cart: I have often cured it with one or two drinks, when it has been but juſt begun, and not of a very malignant kind. Such inſtances as theſe, which are not frequent, may eaſily give a reputation to things of no great efficacy, and bring them into eſteem; tho' whovever acquires any true notion of the Farcy, will ſee plainly, that in any bad kind, or in an advanced degree, it is not to be conquered but by ſuch things as are fitly adapted

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to the various ſymptoms, as they ariſe in the different ſtages of the diſtemper.

The Farcy ſometimes in its firſt appearance reſembles the *St. Anthony's Fire*.

The Farcy, in its beginning, reſembles the *St. Anthony's Fire* more nearly than any other diſtemper of the human body, by the exceſſive heat and pain of the buds, aud their turning ſo ſoon into bliſters; and in its progreſs, eſpecially when it affects the Limbs, it ſeems to have a near affinity with the Lepra, the ſame diſtemper, in a more advanced degree, and ſituated in the dependent parts. In a *St. Anthony's Fire*, the ſkin under the *Cuticula* is always more or leſs thickened according to the degree of inflammation, and the Veins near the inflamed parts are generally turgid and full; the ſame thing is obſervable in the Farcy in a much greater degree. The *St. Anthony's Fire* is generally removed with bleeding, and other evacuations internally, and by applying cooling and emollient applications to the ſores, as poultices of bread and milk, with elder-flowers, and ſuch like. The ſame things will anſwer ſometimes very ſpeedily in a beginning Farcy, when it makes its firſt appearance on the lower Limbs, where ſuch things can be bound on and applied, provided the Horſe has a thin Skin, and not hairy about his Legs; but where it is otherwiſe, as in Horſes of a coarſer mould, that have their ſkins thick, and their Fibres rigid and ſtrong, theſe milder applications will avail but little, and we often find ſuch Horſes as theſe, the moſt ſubject to the Farcy, and the hardeſt to cure.

But tho' the Farcy often begins with many of the ſymptoms that reſemble a *St. Anthony's Fire*,

Fire, yet if it is not ſtopped in ſome reaſonable time, it will ſoon degenerate, and according to Horſes different temperaments, participates of almoſt all the external diſeaſes to which the animal body is ſubject. Sometimes the ſores turn ſcrophulous, and affect the Glands and Joints, like the Evil, and render the Bones carious; ſometimes they breed hard ſchirrous ſubſtances that can neither be diſſolved nor eaſily extirpated; and very often deep abſceſſes are found between the large Muſcles, ſuch as will ſoon waſte the conſtitution of any Horſe; and ſometimes the ſores turn cancerous, which things having hitherto been but little underſtood by the practitioners of Farriery, have been the cauſe why ſo many poiſonable ingredients are uſed, and other odd practices have been in vain tried to conquer this diſtemper. Therefore to avoid the perplexity that ariſes from the various complications ſo uſual in the Farcy, I ſhall conſider it in its different ſtates and degrees, which may be reduced to theſe three, *viz.*

Three degrees or ſtages in the Farcy.

Firſt, when it ſeizes only the ſmaller veſſels, for inſtance, when it makes its firſt appearance on the Head; the outſide of the Shoulder; the prominent part of the Neck, above the Neck-vein; or near the Withers; the outſide of the Hips, or any other part where the Veſſels are ſmall.

The ſecond ſtate of the diſtemper is, when it ſeizes the large Veins, and turns them corded, as the Plate-vein; the Jugular, or Neck-vein, and Thigh-veins; or when it takes its riſe about the Feet and Paſterns, ſpreading from thence towards

towards the Hock or Knee; and with theſe may be reckoned, that kind which begins on the Flank, and creeps downwards towards the lower Belly.

And laſtly, when the Farcy, which began on one ſide only, breaks out on the other alſo, or when it makes its firſt appearance on both ſides at once, or when the ſores or ulcers degenerate, and contract a bad diſpoſition affecting the whole habit, which is the laſt ſtage of the diſtemper.

How Horſes are to be managed in the firſt ſtage of the diſtemper.

When the Farcy makes its firſt appearance on the Head, it is generally, in young Horſes, that have their Heads ſomewhat charged with Fleſh; it riſes on the Cheeks or Temples, and looks like a net-work, or like ſmall creeping twigs full of berries. Sometimes it inflames the Eye on the ſame ſide, and ſometimes little bliſters or buds, riſe on the Eye-lids, and very often the buds run along the ſide of the Noſe, making a circle round the edge of the Noſtril, and ſometimes round the Lip, which being generally ſwelled, hinders a Horſe from chewing his food, and ſo painful, that he cannot bear to be handled about his Head. When the Farcy riſes on the outſide of the Shoulder, it often begins foreward near the point, and runs along the ſmall Veins on the upper part of the Arm, with heat and inflammation; but the buds are ſeldom larger there than on the Face, and the ſwelling not ſo large in proportion as about the Eyes and Lips, which are ſoft and more eaſily diſtended by the influx of the vitiated juices. Sometimes a few ſmall buds riſe near the Withers,

thers, but theſe are inconſiderable and of little conſequence, as well as thoſe that riſe on the outſide of the Hip. The diſeaſe in all theſe appearances being ſuperficial, and affecting only the ſmaller veſſels, is eaſily conquered by the following method, when taken in time; for the ſimpleſt Farcy, when it is ſuffered to go on, or when it happens to be neglected or ill treated, may degenerate into the worſt kind.

Bleeding in the Farcy almoſt always neceſſary.

And this being an inflammatory diſtemper, which in a particular manner affects the Blood-veſſels, muſt therefore require large bleeding, where the Horſe happens to be fat and full of Blood; and it is not amiſs what many do in this caſe, to bleed both ſides of the Neck: the bleeding always contributes very much to check a beginning Farcy, but is of ſmall ſervice afterwards. Yet if a Horſe be low in Fleſh, the loſs of too much Blood ſometimes proves hurtful.

After bleeding let the Horſe have the following cooling and laxative drink.

Take the Leaves and Bark of Elder, of each a handful, ſharp-pointed Dock Root and *Rubia Tinctorum*, otherwiſe Madder, of each half a handful; Turmerick and Monks Rhubarb, bruiſed, of each half an ounce; Liquorice, ſliced, ſix drams; boil theſe in three pints of water, to a quart, and while it is warm, diſſolve in it four ounces of Cream of Tartar, and the ſame quantity of Lenitive Electuary.

Let the Horſe have one of theſe drinks every other morning, for a week, keeping him faſting two hours before and after each drink, then a little warm water and a feed of ſcalded bran. This will keep his Body open, and thereby abate the heat and efferveſcence of his Blood. At the ſame time let the following outward application be made to the affected parts.

Take Ointment of Elder, four ounces; Oil of Turpentine, two ounces; Sugar or Salt of Lead, half an ounce; Powder of white Vitriol, two drams; mix them together in a gallipot.

Anoint the buds, and wherever there is any ſwelling with this liniment, as often as it dries, which will be neceſſary about twice a day, at firſt, till the ſores begin to run, and if the matter be thick and well digeſted, the Horſe will ſoon be well of his Farcy. Sometimes the buds do not break, but ſink and diminiſh gradually, eſpecially the ſmaller ones, and only leave little bald ſpots. This is always a very favourable kind, and the moſt ſuperficial of all others, for the hair ſoon comes on again, and needs nothing further but only conſtant exerciſe or moderate labour to perfect the cure. But if ſome little ſmall lumps remain and continue for ſome time on the Skin without Hair, and though they be dry without moiſture, yet it will be proper in this caſe, as it is more obſtinate than the former, to give the Horſe Antimony, or the Liver of Antimony, for a month, two ounces a day for the firſt fortnight, and an ounce a day for

the other fortnight. By following this method, a Farcy that riſes on parts where there is no very large Blood-veſſels, may be ſtopped in a week or ten days, whether it be on the Head, the outſide of the Shoulders, Hips, or under the Creſt on the prominent part of the Neck, and ſoon after be totally eradicated.

When the Farcy begins on the Plate-vein, or on the Thigh-vein, or Flank, or near the Paſterns, before or behind, which, for diſtinction's ſake, I have reckoned the ſecond ſtate or degree of the diſtemper, the cure is ſeldom ſo expeditious, tho', when it happens to be diſcovered in time, it is ſometimes nip'd in the bud, of which I have had ſeveral inſtances among the Horſes where I have been concerned. At firſt the ſwelling is often no bigger than a hazle nut, ſometimes the Vein is but little corded in a beginning Farcy, with two or three little ſmall hard knots, about the ſize of large peas or horſe-beans, which are frequently overlooked, thro' negligence or the ignorance of unexperienced perſons, till it is more advanced, and by a gradual increaſe cauſes a viſible deformity, and ſometimes where the Blood is in a very ill diſpoſition, makes ſo ſwift a progreſs, that the corded Vein, which in its natural ſtate, is no larger than a wheaten ſtraw, or a ſmall reed, will in a few days become more than an inch in its diameter, and reſemble a pretty large rope. In the Thigh-vein it is ſooner diſcovered, becauſe it ſometimes brings ſudden lameneſs and ſwellings about the Hock. In the ſmall of the Leg, Feet, and Paſterns, it is often at firſt miſtaken for the Greaſe, till it riſes up-

wards and fixes on the larger Veins. And therefore one can never be careful enough in examining into the minuteſt things about a Horſe; for in ſuch caſes as this, the cure depends greatly on timely applications; and I have known many Horſes cured of Farcies that have begun with very ill prognoſticks, by attacking the diſtemper before it has taken ſure footing.

And therefore, when you obſerve the Plate-vein, the Thigh-vein, or the Neck-vein, in the leaſt corded, bleed immediately, and if on the Neck, bleed the oppoſite ſide, and make the following application to the corded Vein, without loſs of time.

Take the yellow or unrectified Oil of Turpentine, in a large phial or pint bottle, ſix ounces; Oil of Vitriol, three ounces; drop the Oil of Vitriol into the Oil of Turpentine, by little at a time, otherwiſe the bottle will burſt. When it has done ſmoaking, drop in more Oil of Vitriol, and ſo on till all is mixed.

This mixture is one of the beſt univerſals I have ever known in a beginning Farcy; the Oil of Turpentine digeſts and makes the ſores run, and the Oil of Vitriol not only abates the acrimony and ſharpneſs of the humours, and by that means checks the growth of proud fleſh, but alſo braces the Fibres, which is a material help in all ſuch caſes.

Rub the part firſt with a woolen cloth, then apply ſome of this mixture all over the buds, and wherever there is any ſwelling, either in the Vein

Vein or on the outward parts that lie near it. Let this be done twice a day or oftener, and at the ſame time give the Horſe the drink above preſcribed every other day, with a pound of Antimony in groſs powder, tied up in a bag, which is to be boiled with the other ingredients. This may be continued a fortnight, or longer, if needful. And if upon the uſe of theſe things the ſores run plentifully, and the matter well digeſted, if they have no ulcerous diſpoſition, if their lips or edges are no ways thick and callous, if proud Fleſh does not riſe, the matter not thin and oily, but thick and well concocted, like that which comes from a rowel; if the corded Vein grows flat and ſoft, and the buds and other ſores have a dry and burnt-like look; you may then expect a ſpeedy recovery, and it will be your intereſt to follow this outward application till the ſores begin to dry; and after that Ointment of Elder and Honey, of each equal parts may be uſed, to make the Hair grow, or the following liniment, which excels all others for that purpoſe.

Take yellow Wax, two ounces; Spermacœti, one ounce; melt theſe together in a large gallipot, before a clear fire, or over a Charcoal fire in a chaffin-diſh; when theſe are thoroughly incorporated, add two ounces of ſweet Oil, and then put in a dram of *French* Verdegreaſe, finely powdered, keeping conſtantly ſtirring till the mixture is cold, that the Verdegreaſe by its weight may not fall to the bottom.

This liniment will heal the ſores, ſmooth the Skin, and make the Hair grow. To confirm the cure, and to prevent a relapſe, give the Horſe an ounce of Liver of Antimony, or Crude Antimony, once a day in one of his feeds, for a month or longer; for theſe things are ſlow in operation, work only as alteratives, and therefore ſhould be continued for a conſiderable time.

When the Farcy begins on the Flanks, or towards the Lower Belly, it ſometimes takes its riſe from a ſingle puncture of a very ſharp ſpur, eſpecially when the Blood happens to be previouſly depraved; and in ſuch a caſe a ſingle puncture is more dangerous than when a Horſe is ſpured till his ſides are raw; for then a digeſtion and a running of laudable matter quickly follows, that prevents it turning to the Farcy. But this is not always the reaſon of the Farcy beginning towards the Flank, or Spurring-place; for I have often known it come there in Horſes that have not been touched with the ſpur, at firſt generally one ſingle bud or two, with the Vein a little corded, attended with ſharp pain and uneaſineſs, in ſo much that a Horſe, tho' naturally quiet and good tempered, will ſcarce ſuffer any one to come near him. The pain and ſmarting is one ſure ſign to diſtinguiſh the Farcy from common accidents. The ſtaring of the Hair, ſtanding up like a tuft all round the buds or bliſters, and the matter which iſſues from the coats of the Veins or Membranes, is always purulent, and of a clammy or greaſy conſiſtence; for fat Horſes, or Horſes at rank ſucculent graſs, are the moſt ſubject to this kind, and

The Farcy that begins on the Flanks ought not to be overlooked.

and if it is not ſoon ſtoped, the buds will increaſe and multiply, and ſpread themſelves on the Lower Belly, and other looſe and dependent parts, as the Sheath, the Groin, and ſometimes forwards towards the Briſket. The reaſon of which may be eaſily apprehended by any one who conſiders that the Lower Belly is made up of parts that are eaſily ſtretched and diſtended; for a rowel or the tightneſs of a girth, or a ſmall puncture on the Belly or Flanks of a fat Horſe proves ſometimes troubleſome enough, but much more in ſo depraved a ſtate as the Farcy, wherein many bad ſymptoms are apt to riſe and increaſe very faſt, and become obſtinate, not only by reaſon of the innumerable twigs of veins that creep all over the Belly and Flanks, but becauſe of the great plenty of fat that lies under the Skin, and invirons theſe Veins, which breeds a very ill diſpoſition in the ſores and ulcers. And therefore, when the Farcy begins on the Flank or Lower Belly, let no time be loſt, but as ſoon as you perceive it, uſe the following application outwardly.

Take Oil of Turpentine and Oil of Vitriol, of each three ounces; mix them together, as directed above, by pouring in the Oil of Vitriol by little and little, till the ebullition is over, and the whole incorporated, which will be thickiſh and of a dark colour.

Rub this mixture well into the buds and ſores once or twice a day, or wherever there is any ſwelling, till it abates, and that the ſores run a laudable matter. If the pain and tenderneſs go

off, that the Horſe will ſuffer the affected parts to be handled, it is a promiſing ſign; as alſo when the ulcers grow ſmooth and look clean, and the ſwelling ſinks and ſubſides. The quantity of Oil of Vitriol is here enlarged, which I have always found neceſſary when the Farcy is ſeated in parts that are looſe and ſubject to moiſture and humidity, which ingenders proud fleſh, and therefore requires ſuch applications as are more intenſely ſharp, and in ſome meaſure compreſs like a Bandage. And to prevent the ſwelling of the Lower Belly, which ſoon increaſes with the Farcy, and grows dangerous, apply the following mixture all over the ſide that is affected.

Take rectified Spirit of Wine, four ounces; Oil of Vitriol and Oil of Turpentine, of each two ounces; the beſt white Wine Vinegar or old Verjuice, ſix ounces; mix theſe carefully together. Or the following,

Take Spirits of Wine, rectified, four ounces; Camphire, half an ounce; diſſolve the Camphire in the Spirits, then add Vinegar or old Verjuice, ſix ounces; white Vitriol, in fine powder, and diſſolved in a gill of Spring Water, an ounce; mix them together, ſhaking the phial as it is uſed.

Rub the diſeaſed ſide with either of theſe as far downwards as the centre of the Belly, which will contribute to brace up the Fibres of the Skin and of the Veins, and keep them from ſtretching, and by that means prevent the ſpreading

ing of the Farcy; at the ſame time give internally the drink above preſcribed, with a courſe of Antimonials, with Gum Guiacum, ſuch as ſhall be preſently preſcribed; and if the Horſe be found in his Vitals, and the Farcy not too far gone, this method, ſtrictly followed, will cure him.

The Farcy in the Paſterns how to be treated.

When the Farcy begins on or near the Paſterns, it often proves tedious, and leaves ſwellings and other blemiſhes behind it; yet if it be diſcovered in time, it may be cured without much difficulty. In the Lower Limbs the Farcy lies ſometimes concealed for a great while, and makes ſo ſlow a progreſs at firſt, that it is often miſtaken for the Greaſe, or for a blow or a kick of another Horſe, and goes by the general appellation of a humour ſettled in the Leg. It is true, the Greaſe or kick of another Horſe, or even a blow or contuſion on thoſe parts may turn to a Farcy, either through bad management or in a bad conſtitution; but that we may be able to form a judgment in this caſe, I ſhall lay down ſome diſtinguiſhing ſigns whereby to know a beginning Farcy in the Limbs, and in what reſpects chiefly it differs from the Greaſe or other accidents. A kick or a bruiſe is for the moſt part attended with a ſudden ſwelling, or by a contuſed wound on the part, which is eaſily ſeen, and generally digeſts and turns ſpeedily to matter, or goes off by diſcuſſion. The Greaſe for the moſt part breaks out about the bending of the Paſterns backwards, and runs downwards towards the Heel, and if it breaks upwards, it is owing to the ſharpneſs of the humour,

Wherein the Farcy in the Limbs differs from the Greaſe.

mour, caused by the want of a free discharge below, and then it only ooses through the Skin, and discharges a corrosive serum, that sometimes brings off the Hair or turns scabby, with a constant heat in the part till it is cured. The Farcy on the other hand often begins on the Pastern Joint, or on the Shakle Vein. When it begins on the pastern Joint, it is usually one single bud, at first, on the fore part or on one side of the Pastern, which brings a fulness and swelling into that Joint and no where else, till the distemper gains ground, when several other buds begin to rise and spring forth in little round tumours, that greatly deform the figure and shape of the Leg, not like the Grease or a common humour in the Limb, where the swelling is smooth and equal; but like a knotted crab-tree, which first disables the Horse from lying down, and then the knots ascend upwards by the course of the Veins into the Hock, and from thence into the Thigh, &c. as has been already described. That which begins on the Shakle Vein is where it passes over the great Sinew behind, and generally happens after long travelling or labour, when the Vein has been bruised by the frequent frictions of the Sinew. These Veins are so small naturally, that they are scarce ever to be seen or felt, but on very fine thin skinned Horses, and even not in these, but when they are heated with exercise, and that all the Veins are filled with the Blood's rarefaction; and the Veins that creep over the Pastern Joints being also very small, and lying deep under a thick Skin, are sometimes bruised in the same manner with

with long journeys, by the continual working of the Joint, which cauſes the Farcy to begin there in Horſes that are old, that have their Limbs ſtiff, and their Blood poor and depaupe-rated. In all theſe caſes, a great deal depends on ſetting about the cure early; and I have known it often ſtop'd by very ſimple means, before it has begun to ſpread. A Poultice made with Bran and Verjuice, bound round the part, renewing it once a day, will often do the buſineſs without any other help, by contracting the Coats of the Veſſels, keeping the part always cool, and preventing the influx of humours, and if proud Fleſh ariſe, touching it with Oil of Vitriol, or Aqua Fortis, an hour before you apply the Poultice, letting it continue bare all that while, that theſe Oils may have their effect; for as yet, we ſuppoſe the diſtemper to be only local, and confin'd to a ſingle part; and therefore, may be chiefly conquered by the help of outward applications made in time and cloſely followed.

But when once the Farcy gets ground, that the larger Veſſels become corded, ſo as to conſtitute the ſecond, or more advanced ſtate of the diſtemper, it then requires both time and ſkill to manage it; and thoſe who imagine that the Farcy, when arrived to this degree, may be ſoon cured with a few drinks, as many unexperienc'd perſons are apt to do, will for the moſt part find themſelves greatly diſappointed; and tho' indeed the chief benefit may be expected from inward means in ſuch caſes, yet the outward applications muſt not be omitted, but conſtantly uſed; and therefore, if the Plate Vein, the

the Thigh Veins, or any other of the larger Veſſels happen to be corded, uſe the following mixture.

The cure of the Farcy, when it grows inveterate.

Take Linſeed Oil, half a pint; Oil of Turpentine, and Oil of Petre, of each two ounces; Tincture of Euphorbium, and Tincture of Hellebor, of each two drams; Martiatum, or the Soldier's Ointment, two ounces, and if that cannot be had, *Flanders* Oil of Bays may be ſubſtituted for it; Oil of Origanum, half an ounce; double Aqua Fortis, half an ounce; after the Ebullition is over, add two ounces of *Barbadoes* Tar, then ſhake the bottle gently, and keep the mixture for uſe.

Rub a moderate quantity of this into the corded Veins, and wherever there is any ſwelling proceeding from the Farcy. It conſiſts of hot ſtimulating ingredients, which are abſolutely neceſſary in all ſuch caſes, where the Juices that nouriſh the Veins are in a kind of coagulum, and participate of the nature of a callus, without ſenſibility, heat, or motion, except where the buds or tumors ariſe, which, as has been obſerved, are very ſenſible, hot and angry, ſome like an eryſipelas, and ſome like a tetter or herpes, and in creatures that have their Veſſels ſo large, and their Coats ſo thick, in proportion to what they are in the human Body, prove but a weak effort in nature to throw off the diſtemper; and this is no doubt, the reaſon why the Farcy becomes ſo difficult to cure in Horſes that are old, or inwardly diſeaſed, for in both theſe caſes, the Blood is often poor, cold and vapid,

vapid, loſes its balſamick quality, and can ſcarce be recovered by any regimen or reſtorative whatever. But the above mixture, will help greatly to put the Blood and languid Juices of the external parts in motion, which is a principal intention in the cure of the Farcy: when it is arrived to this ſtate, once in two or three days is ſufficient for this application; but when the Skin is ſo much thickened over the ulcers, as to confine the matter underneath it, or if the orifices be choak'd up with proud fungous fleſh, it is neceſſary alſo, in either caſe, to make an open paſſage for it with a ſmall hot iron, cauteriſing the ſides, and deſtroying all the proud fleſh round the edges, after which it may be kept down by touching, as often as it appears or begins to ſprout out, either with Oil of Vitriol, Aqua Fortis, Aqua Regia, or with Butter of Antimony, which is the beſt of all where the ulcers are few in number; but this being a very powerful cauſtick, made chiefly from ſublimate, will create pain and inflammation, if it be apply'd much to the Limbs and nervous Parts, will take a Horſe off his Stomach, and raiſe a Fever, which may heighten and aggravate all the ſymptoms, eſpecially before the Blood is ſufficiently attenuated, and the Juices fitted for a freer circulation; otherwiſe when this is uſed with ſkill and judgment, it is of great ſervice to deſtroy the foulneſs of the ulcers, and to make them digeſt well, which ſoon gives a turn to the diſtemper. A Salve made by rubbing any quantity of Quickſilver with Aqua Fortis in a mortar to the conſiſtence of a liniment, will do great ſervice in

When neceſſary to open the Buds and clean the Ulcers.

this caſe, by ſmearing the ulcers with it when they appear foul and rank, and may be apply'd with leſs hazard than the Butter of Antimony. Burnt Allum and Lime Stones made into a fine powder, will have a good effect where there is humidity and moiſture, and will tranſmit nothing into the Blood that will prove hurtful.

Many of our common Farriers uſe Arſenick, or Corroſive Sublimate, after opening the buds, putting a ſmall quantity into each, which anſwers in caſes where there are but few, and theſe not ſituated near large Blood-veſſels, Joints, or Tendons. This they call coring out the Farcy, becauſe the Eſchar, or part that is burnt with theſe cauſticks, digeſts off like the cores that are drawn out of the Heels with poultices. Others uſe only Roman Vitriol in powder, or Sublimate and Vitriol mixed together in equal quantities, which is milder and leſs dangerous than Sublimate alone. But many Horſes have been poiſon'd by thoſe things, eſpecially with the Arſenick and Sublimate, when they have fallen into the hands of ignorant perſons. I have ſeen the whole Leg and Thigh full of buds and ulcers of various ſizes, ſo much pepper'd with Sublimate, that the Horſe has dy'd ſuddenly, with all the uſual ſymptoms of a ſtrong poiſon; and I once knew the greateſt part of a pack of hounds poiſon'd with the Carcaſe of a Horſe that had been treated in this manner; but when the Sublimate, Arſenick, or other ponderous mineral combin'd with corroſive Salts, once enters the Blood in any quantity, as eaſily happens in ſo many apertures, theſe things tear the ſmall Veſſels to pieces wherever

wherever they paſs in the courſe of circulation, and if they do not cauſe ſudden and immediate death, they produce many new ſores and ulcers, not only in the external parts, which I have often obſerved after ſuch treatment, but inwardly eroſions in the ſmall Veſſels of the principal *Viſcera*, and in the membranous parts, with many untowardly ſymptoms, which renders the caſe deſperate, and in brute creatures, when hurt by ſuch management, not worth the expence of a cure. But ſuch accidents ſeldom happen from a moderate uſe of the ſharp Oils, as they are more ſimple, and no ways combin'd with ponderous minerals, for they act more after the manner of the actual cautery, and rarely communicate their effects further than the part to which they are immediately apply'd, whereby they often do great ſervice, and with proper internals, effectually check the further progreſs of the Farcy.

Very deſperate methods uſed in the cure of the Farcy.

Now as to internals, they ought to be ſuch as are both efficacious and ſafe; yet when once the Farcy is advanced to this degree, nothing is more common than to exhibit the moſt harſh and rugged things that can be deviſed, agreeable to the common maxim, that a deſperate diſeaſe muſt have a deſperate remedy: And with this view, ſome give inwardly from four to eight ounces of Lapis Calaminaris; and ſome have further added two ounces of Tutty in fine powder, with other metallick ſubſtances, which are never ordered inwardly in the diſeaſes of the human Body, unleſs by empyricks, but are frequently applied outwardly, in mixture with oint-

ointments, to dry up and incarn moiſt ſores and ulcers; and therefore, if they ſucceed at all with Horſes, it muſt be where there is a very great humidity and moiſture in their conſtitutions, of which few practitioners in farriery are proper judges.

Some give a pound of barrel ſoap in one doſe, boiled in ſtale beer with Rue, Savin, and other herbs of the ſame intention; and the ſoap being extremely opening and deterſive, has ſucceeded with Horſes of very ſtrong conſtitutions that feed well, and before their ſtrength has been impaired; but if ſuch a doſe be given to a weak Horſe, it will go nigh to throw him into an incurable Scouring or Diabetes.

Others go yet further, as with an intention either to kill or cure, by adminiſtring drinks made with green Vitriol or Copperas, Rock Allum, Roman Vitriol, and Oil of Vitriol, boiled in chamberlye, with Hempſeed, Hens-dung, Hemlock, and common Salt. This medley has often been tried in many deſperate caſes, though I cannot ſay I ever heard its ſucceſs much boaſted of; the Copperas and Vitriols might perhaps make a kind of ſtomachick elixir for a Horſe, if it was corrected with warm ſpicy ingredients, but then it would have but little effect in an inveterate Farcy; Hen-dung, and the dung of moſt other fowls, are reckoned to abound with ſalts that are very penetrating, and might be of ſome ſervice, if the other things were ſuitable; the Hemlock participates ſomewhat of the nature of Opium, but is more ſtupifying, and ſome old writers have commended its inward

uſe

uſe in obſtinate chronic caſes, eſpecially of the ſchropholous kind, but now it is never preſcribed but in outward applications; but what effect ingredients of ſuch contrary natures can have when thus combined together, is not eaſily to be accounted for. The main intention of the vitriolick medicines, if there be any intention at all in them, ſeems to be with a view to brace up the Fibres of a very relaxed conſtitution, but this may be much better done by things of greater ſafety. I have known a Farcy ſtopped, to outward appearance, by ſuch odd management, but has ſoon broke out again with more violence than before; and often in ſuch caſes, when the Farcy ſeems to be dried up, the cords, knots, and other deformities ſtill remain, and leave a ſickly, crazy, and ſurfeited conſtitution, which neither phyck, graſs, or any other treatment is able to recover.

Thoſe who uſe nothing but the decoctions or juices of herbs, ſuch as Wormwood, Rue, Elder, Ragwort, Horehound, and many other ſuch like ſimples, with a mixture of Wood-ſoot, Brandy or Aqua Vitæ, have a much better chance to cure the Farcy, if they begin in time, and take care to make proper applications outwardly, as there are nothing in ſuch ingredients but what are friendly to the animal conſtitution, and the Soot is certainly of great uſe in many caſes. I have ſeen ſeveral receipts of this kind that have been much commended, though I am apt to believe their ſucceſs has been chiefly in a beginning Farcy. But in an inveterate kind, or when the Farcy has grown ſo by its continu-

ance, or by ill management, nothing can come in competition with mercurial and antimonial preparations, as I have often found from experience.

Cautions in administering mercurial medicines.

But in adminiſtering mercurial medicines, ſeveral cautions are neceſſary, eſpecially in an inveterate Farcy, when it appears in ſeveral places of the Body, from a very bad diſpoſition of the Blood, and when the Veins are much corded; for all mercurials, by their weight, ſubtilty, and globular figure, work with great force and impetus in the animal canals, ſo as to increaſe the motion of the Blood to a very great degree, and therefore the reſiſtance mercurials meet with in the obſtructed veſſels, when many of the ſmaller Veins are in a manner ſhut up, muſt cauſe very great diſorders in the animal œconomy; and this being often the caſe, the ſtronger and more compounded preparations of Mercury, which have been contrived for the greater efficacy, are ſometimes very hurtful, and not near ſo much to be depended on as thoſe that are more ſimple, of which I have ſeen many inſtances in practice. This is very evident from the effects of Calomel, which, though it may be reckoned among the milder preparations of Mercury, and has been always reputed a very ſafe medicine, in many diſeaſes of the human body, eſpecially in the hands of able practitioners, yet it ſeldom avails in a ſtubborn inveterate Farcy, or any other chronical diſtemper in a Horſe, but often cauſes ſymptoms that are not very agreeable, as loſs of appetite, ſtaring of the hair, ſcabs, blotches on the ſkin, and other ſuch deformities, which may

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be owing to the corroſive ſalts with which it is combined, and which perhaps are ſeldom ſo far blunted by ſublimation, as to paſs inoffenſively thro' the capillary Veſſels, eſpecially in ſuch habits, that in a more particular manner affect the Veins; and therefore, as I have often obſerved in Horſes, makes its way through the Skin, which rather increaſes than abates the diſtemper.

On the other hand, the ſtronger preparations of mercury, as the red and white precipitates, are yet more hazardous and injurious to the conſtitutions of Horſes, being more combined with ſharp and ſaline parts than the Calomel, and therefore only fit for outward applications. However, ſome have ventured on theſe inwardly, both in the Farcy and Mange, and alſo to deſtroy worms, in which latter caſe I have known them do ſervice in very ſmall doſes, *viz.* four or five grains made up with an aloetick purge; but I have heard but of few inſtances of ſuch things in the Farcy, it being impoſſible to repeat them without manifeſt danger, and in ſo ſtubborn a diſtemper, when once it is confirmed, two or three doſes will avail but little, but rather ſtrengthen this ill habit, and render it more complicated than it was before, and conſequently more obſtinate and incurable.

The Turbith Mineral is another very efficacious mercurial preparation, milder than the foregoing Precipitates. Its operation in the human Body is chiefly emetick, and where it does not vomit, will ſometimes, in one ſingle doſe, raiſe a ſalivation. I have given a dram of this in an inveterate Farcy, where the Limbs have been

greatly ſwoln, which in the ſpace of forty-eight hours, has dried up all the ſores, and in a ſurpriſing manner, brought down the ſwelling of the diſeaſed Limbs; but then it made the Horſe ſo violently ſick for ſeveral days, and ſcour to ſuch a degree, that it could not be repeated, ſo as to effectuate a cure, but moſt of the ſymptoms returned in the truce that was neceſſary, in order to his recovering the ſhock given by the force of ſo ſtrong a medicine.

I never made trial of any of the Mercurial Panaceas, which from corroſives are rendered mild in their operations and effects, by the art and labour of the chymiſt, theſe being too chargeable and uncertain to be given to Horſes; but I have often found benefit from Crude Mercury, or the moſt ſimple preparations of it, and even theſe require to be adminiſtered with great ſkill and judgment, and with ſome knowledge of the Horſe's conſtitution, for ſome Horſes will bear much more of ſuch things than others. I have frequently known Crude Mercury adminiſtered to Horſes with good ſucceſs, when their Wind has been ſuſpected, and without any ill conſequence; I have known an ounce of Quickſilver ſhook in a phial, with three or four ounces of the Oil of Turpentine, till its parts were ſeparated and broke, and changed to a dark coloured draught, and given in the Farcy, and if not too cloſely repeated, it will, in ſome conſtitutions, effectuate a cure in a very ſhort time; I have ſometimes cauſed an ounce of Quickſilver to be rubbed together with an ounce of Turpentine, to kill the Quickſilver, and then made

made into two balls, with Diapente and Gum Guiacum, of each an ounce, and Honey ſufficient to bring it into a proper conſiſtence, and given at twice, allowing the ſpace of four or five days between each, and with four of theſe have cured the Farcy when it has been very rank, with the help of lenitive purges and outward applications, in the manner above directed.

But if the Crude Mercury, or even the Æthiops Mineral, be cloſely followed in repeated doſes, whether large or ſmall, it will bring ſome Horſes inſenſibly into a ſalivation, which perhaps may be thought a little ſtrange to thoſe who have been converſant with the effects of Mercury in the diſeaſes of the human Body, but have not had experience in ſuch things when adminiſtered to Horſes, becauſe the Sulphur in the Æthiops Mineral being equal in quantity to the Mercury, has generally been looked upon as an effectual guard upon it; and indeed it has ſcarce been ſeen to have the leaſt tendency towards a ſalivation in the human Body, though ſometimes it will make its way through the pores of the ſkin; and I have often known it given to very young children of ſchrophulous and ſcorbutick habits, for ſeveral months together, without any ſuch effect; from whence one would imagine that a very ſmall portion of the Mercury in the Æthiops, enters into the blood of infants; and this may be owing partly to the extreme ſmallneſs of their Veſſels, and partly to ſlime and viſcidities in their bowels, that frequently furs up the mouths of the Lacteals both in younger and older perſons, to which incon-

veniencies Horſes are not ſo liable as men, by reaſon of their more ſimple diet, which never conſiſts of viſcid or oily things, and their drink being pure water, eaſily mixes and aſſimilates with all their food; and therefore it is eaſy to imagine, that moſt mercurial medicines may enter more readily into the maſs of Blood in a Horſe than in man, their Lacteals being alſo more large, open and free; and a Horſe's Blood being once ſated with the Mercury, he may be the ſooner affected by it, that the poſition of his Head is in ſome meaſure dependent, and that the courſe of the Thoracick Duct, which conveys both aliment and phyſick into the Blood, is partly horizontal, and upon a level with the receptacle of the Chyle: and whereas the carotid and jugular Arteries in Men, carry the Blood ſtreight upwards to the Head and the Veins, in returning it in the courſe of circulation perpendicularly downwards, therefore this kind of mechaniſm is the cauſe, why the return of the Blood from the Head is more quick and ſudden in men than in quadrupeds, where the Veſſels are either in a horizontal or oblique direction, and may in a great meaſure be the reaſon why we often obſerve in Horſes, a great accumulation of ſeroſities upon the Glands of the Mouth and Noſe, in their colds and other diſorders, whereby many of their diſeaſes are thrown off critically by theſe outlets.

From theſe conſiderations, it will be eaſy to conceive, how the ſame kind of mechaniſm diſpoſes mercurial medicines to exert their force more immediately upon the parotid Glands, and

and thoſe in the Mouth and Noſe of a Horſe, which is alſo evident from experience, though ſome Horſes are more eaſily affected than others, of which I have known ſeveral inſtances, eſpecially among the heavy coach breed, theſe being, for the moſt part, of more relaxed conſtitutions than the generality of ſaddle Horſes; and I have ſeen ſome of them begin to ſlabber, and unable to chew their hay and oats, after taking Æthiops Mineral about a week or ten days conſtant, though not above half an ounce in a doſe; and I have known the ſame ſymptoms ariſe from Crude Mercury, where only two drams has been given, and continued about the ſame ſpace of time. And therefore, whoever adminiſters Crude Mercury, or ſuch mercurial preparations, where the Mercury is but little changed, or ſuch preparations as are charged and combined with corroſives, muſt allow ſufficient intervals between the doſes, to prevent a flux from the Mouth and Noſe; for whatever ſome may pretend to, it has been found altogether impracticable to carry a Horſe through a ſalivation, or even ſo much as to keep him one week under it, by all the helps that the greateſt art and ſkill can afford; for as ſoon as a Horſe's Blood begins to be ſated with the Mercury, its eaſy admittance forward towards his Head, cauſes a repletion of all the Blood-Veſſels in thoſe parts, and thereby produces many untowardly ſymptoms. His Eyes appear ſwoln and look watery, with a deadneſs and ſtupor in his looks, ſomewhat reſembling the Staggers; the Plethora and fulneſs of his

Veſſels produce a feebleneſs, whereby he grows languid in all his motions; and no creature whatever is more ſheepiſh and daſtardly than ſome of the moſt boiſterous kind of Horſes, when once they are overcome, either by force or ſickneſs; the parotid and ſalivary Glands become inflated, and his Mouth ſo tender, that although he appears hungry and willing to eat, he only mumbles his hay and drops it out of his Mouth, mixed with a little viſcid ſlime, and with great difficulty will make a ſhift to ſwallow a few oats and a little bran; there is the ſame difficulty in his drinking, for as ſoon as he holds his Head down to his water, his Mouth guſhes full of a roapy ſlime; and moſt Horſes, even in a common Cold, the Yellows, or any other diſtemper that affects the Glands of the Head, will refuſe to drink gruel or water, or to eat food ſufficient to keep him alive, while they are in this condition, becauſe the ſlaver mixes with their water and aliment, which is always very diſagreeable to them.

In ſome ſuch caſes, where there has been the ſymptoms of a beginning ſalivation, I have been forced to order them Glyſters, to give preparations of Sulphur, lenitive purges with Rhubarb, and afterwards ſtrong decoctions of Guiacum, to divert the flux from the Mouth and Noſe, and to carry it off by other outlets; but I never found any ſuch effect from the native Cinabar or Cinabar of Antimony, having often given the latter with great ſafety and uncommon ſucceſs, for two or three months together, in ſome very obſtinate and inveterate caſes; for the

the Mercury in this preparation ſeems to be ſo fixed with the Antimony and Sulphur, that I could never obſerve it have the leaſt tendency to a ſalivation, nor expoſe a Horſe in the leaſt to catch cold. And therefore, in an advanced degree of the Farcy, when it is become obſtinate by its long continuance, it is in vain to hurry on a cure, but to proceed gradually; for if the diſtemper has been contracting for a long while together, and by that means gathered ſtrength and ſure footing, it is not to be removed but by ſlow degrees, during which time, if the Horſe is not very much disfigured or lame, he needs not lie idle and uſeleſs, but may be moderately worked, which always give ſome aid and aſſiſtance to the cure.

The hurrying of a cure in an obſtinate and inveterate Farcy often dangerous.

Now in this advanced degree of the Farcy, obſerve carefully the complexion and other qualities of the buds and ſores, whether they have a yellowiſh hue, and look ſchirrous and hard about the edges, which is frequently the caſe when the Liver happens to be affected, if not taken notice of in time, the cure may be fruſtrated. To remove this ſymptom give the following drink.

The cure when the Farcy is joined with the Yellows.

Take the Roots of ſharp-pointed Dock, wiped clean from the mould and cut into ſmall ſlices, one handful; Rhapontick, or inſtead of the Rhapontick, Monks Rhubarb, one ounce; Turmerick and Madder bruiſed, of each half an ounce; Liquorice ſliced, half an ounce. Boil in three pints of water to a quart, and in the decection, while warm, diſſolve half an

ounce of *Caſtile* or *Venice* Soap. Then take two drams of Saffron ty'd in a rag, ſqueeze it in the hot liquor till the virtue is got out of the Saffron, then add half a pint of White-Wine or ſoft Ale, and give it in the morning faſting.

Let this be repeated three or four days ſucceſſively, only after the firſt day, half in the morning faſting, and the other half in the afternoon between his feeds.

When the Blood is in a morbid ſtate.

If the buds and ſores look blackiſh and of a livid colour, it ſhews ſomewhat of a cold languid ſtate of the Blood and Juices tending to mortification. In which caſe the following drench will be of great ſervice.

Take of the beſt Jeſuits Bark groſly powdered, two ounces; Chamomile Flowers, one ounce; filings of ſteel, old nails, or any other pieces of old iron ty'd up in a rag, four ounces: Boil in three pints of water to a quart, pour off the decoction when ſettled, and let it be given in the morning.

It may be repeated three or four days, by boiling the ſame ingredients over again, until the decoction loſes moſt of its bitterneſs; and if it be neceſſary to repeat it oftner, it may be made of freſh ingredients, except the iron, which will always ſerve to the end of the cure.

Theſe things being ſufficiently repeated in either caſe, will bring the ſores to a better and more lively diſpoſition; and when this appears,

pears, they may be diſcontinued, and no other internals need be given beſides the following balls.

Take eight ounces of native Cinabar or Cinabar of Antimony; Long Birthwort, and Gum Guaicum, in powder, of each four ounces. Honey ſufficient to make the whole into a paſte, to be formed into balls the ſize of large Walnuts, rolled in Liquorice powder.

The Cinabar of Antimony that riſes in the ſame proceſs with the Butter of Antimony, is ſaid to be the moſt efficacious. I have made trial of both, but without any ſenſible difference, and therefore I prefer that made in the common way, which is both cheaper and more eaſy to be had than the other.

Theſe balls are proper in every ſtate of the Farcy; I have often cured it in one week when the diſtemper has been but new, and before the Skin was much defaced with the depraved ſtate of the Ulcers, without drinks or any other means, by giving one or two of them in a day. And in an old Farcy, I have continued them for two or three months together, during all which time, the diſtemper has been ſenſibly declining, with the uſe of theſe balls only, and the help of outward applications; which, as I have already obſerved, are by no means to be neglected, but ought to be very conſtant; for without deſtroying the fungous fleſh, and clearing the ſores and ulcers from the ſharp corroſive matter, with which they are apt to abound, the beſt inward means may fail and prove of no effect. But of this ſufficient directions have been given above.

Some kinds of the Farcy not to be cur'd without the conſtant uſe of outward applications.

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In what manner the Farcy appears when it is incurable.

The laſt and moſt complicated ſtate of the Farcy here mentioned, being in a great meaſure incurable, I ſhall only deſcribe the chief ſymptoms, with the manner thereof, that the owners of ſuch Horſes may be at no unneceſſary expence and trouble, when in the end they may loſe all their labour, and meet with a diſappointment.

When a Farcy that has begun with no other than the common and uſual ſymptoms, but by long continuance, by improper applications, or by neglect, has ſpread and increaſed; if freſh buds are continually ſprouting forth while the old ones remain foul and ulcerous; if they riſe on the Spines of the Back and Loins; if the Horſe grows Hide-bound; if abſceſſes are formed in the fleſhy Parts between the Interſtices of the large Muſcles; if his Eyes look dead and lifeleſs; if he forſakes his food and ſcours often, eſpecially if his excrements be thin and of a blackiſh colour, you may look upon his Farcy as degenerated into an incurable conſumption. And tho' a Horſe may have but few of theſe worſer ſymptoms, may eat his allowance, and drink his water, and look lively and ſprightly about the Head; yet if the Plate-vein, or the Thigh-vein continue large and corded, and if theſe remain ſo after firing, and other proper applications have been made, it is a ſign the diſtemper has penetrated inwards, and has affected ſome of the internal parts that lie out of the reach of outward applications, which will render the cure both tedious and expenſive; firing the corded Vein is ſometimes a great help, and

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the ſpeedieſt in this caſe, eſpecially when fired pretty deep, that a good diſcharge can be made; for tho' that branch of the Vein is likely to be loſt by it, yet the circulation of the Blood may be preſerved by the other communicating branches, as we ſee often in caſes when a Vein is loſt in the Neck after bleeding. Only it is to be obſerved, when a Horſe loſes ſome of the principal Veins, as the Plate-vein, or the Thigh-vein, and the Farcy by that means ſtopped, yet the parts will remain weak for ſome time afterwards; and therefore he ſhould not be too much preſſed in any buſineſs till he recovers his ſtrength.

When the Farcy has continued ſo long in the Limbs, as to produce large calloſities and ſwellings about the joints, tho' the ulcers are dried up, and no freſh buds appear any where, yet, when the Leg is very much increaſed in bulk, and the joints ſtiff and unfit for motion, ſuch Limbs are ſeldom ever recovered to their perfect uſe and ſhape, or at leaſt not for a long time.

There remains yet another caſe that has been partly deſcribed among the prognoſticks, *viz.* when many of the common ſymptoms of a Farcy are epidemical. I remember ſome few Horſes about fourteen years ago, ſeized with the ſymptoms of a rank Farcy, that was infectious and very fatal; but this did not continue long. It began with one or two ſingle buds upon the Flank, near the Groins, or the Emunctories under the Jaws, and ſoon ſpread itſelf all over the body on both ſides, attended with a profuſe running of purulent matter from the Noſe, which ſoon made them forſake all manner of food.

How an epidemical or infectious Farcy appears, and the conſequence thereof.

food. The buds generally broke in twenty-four hours, and diſcharged a vapid bloody ichor, which ſhewed a morbid ſtate of the whole maſs of Blood; and tho' this is what people generally call the Farcy and Glanders, yet it is properly a peſtilential diſtemper, and makes ſo ſudden a havock, as takes away all hopes of a recovery; and if any thing ſhould be attempted towards a cure, it muſt be by thoſe medicines preſcribed for malignant diſtempers, as has been already obſerved, for here outward applications are of little uſe. When Horſes are ſeized in this manner, they ſhould be immediately removed out of the way, to prevent others being infected by them.

The Water Farcy (as the farriers term it) has little or no relation to the true.

I ſhall conclude what I have further to ſay on this ſubject, with ſome few obſervations concerning the Water Farcy (or Watry Farcy, as ſome call it) which indeed is another diſeaſe, and has little or no reſemblance to a true Farcy, either in its cauſe, ſymptoms, or effects; but has only obtained this name through ignorance and cuſtom.

This of two kinds.

The Water Farcy is of two kinds, one the product of a feveriſh diſpoſition, the other is dropſical, and of that kind which in man reſembles the *Anaſarca*, where the water is not confined to the Belly and Limbs, but ſhew itſelf in ſeveral parts of the Body, with ſoft ſwellings, which yield to the preſſure of the fingers, as is uſual in all dropſical habits. This laſt kind uſually proceeds from foul feeding, or from the latter graſs and fog, that often comes up in great plenty with long continued cold rains, and breeds

a ſlug-

a ſluggiſh viſcid Blood. In this caſe, or from whatever other cauſe it proceeds, give the following infuſion.

The cure of the Water Farcy.

Take Rue, Chamomile-Flowers, and the Rhind or Bark of Elder, of each a handful; ſix cloves of Garlick peeled and cut ſmall; Juniper Berries and Aniſeeds, of each an ounce; Saffron, one dram; infuſe theſe all night in a quart of boiling Water, wherein hot iron has been quenched; pour off the infuſion in the morning, and add to it a pint of ſtale Beer, or a pint of white *Lisbon* Wine.

Give one half in the morning faſting, and the other half at night, about two hours before feeding time. Repeat this every other day for a week or a fortnight, feeding with the beſt hay and oats, and after his drinks a little ſcalded bran, allowing an ounce of Sulphur and Antimony in each feed. When the Horſe is brought into a ſomewhat better plight, give him two or three mild purges, made with an ounce of Succotrine Aloes, two or three drams of freſh Jallap, half an ounce of Cream of Tartar, and ſixty drops of Oil of Juniper, made into a ball with Syrup of Marſh-mallows or Honey. And this method will make a perfect cure, if the Horſe be ſound in his Vitals; and if otherwiſe, that the watry ſwellings are the effect of ſome inward decay, it may be known by theſe ſigns, *viz.* he will loſe his appetite, have a dry cough, gleet at his Noſe, and have a deadneſs in his looks; in which caſe he muſt be treated accordingly,

cordingly, if the Horſe be of value and worth the trial.

The other kind often begins with feveriſhneſs and loſs of appetite, but that ſymptom ſoon goes off when the tumors arrive to their maturity; for then they take to their meat, and nature often effectuates a cure, with little or no other help beſides a few feeds of ſcalded bran with ſulphur. Theſe tumors are commonly hot and ſomewhat inflamed. Sometimes they break, and ſometimes diſperſe of themſelves, without breaking; and when they break, they generally diſcharge a little hot ſcalding water, which after a day or two, digeſts and heals without turning ulcerous. This diſorder is more frequent in ſome ſeaſons than others, of which I have already taken notice, in treating of the epidemical diſtempers of Horſes.

The cure is to bleed plentifully in the beginning, then adminiſter the following drink.

Take the Leaves and Bark of Elder, of each a large handful; Chamomile-Flowers, half a handful; Juniper Berries, bruiſed, an ounce; Boil in a quart of water to three half pints, pour off the decoction, and while it is warm, diſſolve in it four ounces of Cream of Tartar, and ſix ounces of Honey.

Give one of theſe drinks every other morning, for one week, with Antimony and Gum Guiacum, of each half an ounce, once a day, in a feed of ſcalded bran, to be continued about a week or longer, if neceſſary.

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The like ſymptoms will ſometimes happen at the criſis or turn of a malignant Fever, of which I have known ſeveral inſtances. I have ſeen the Head ſwoln to a monſtrous ſize, and the Lips particularly, to ſuch a degree, that the Horſe has been unable to take any other ſuſtenance beſides water-gruel, for ſeveral days together. Sometimes the ſwellings fall on the Briſket and other dependant parts, both of the Body and Limbs; they are generally of a watry diſpoſition, and ſeldom come to any maturity; but are eaſily diſperſed with the help of proper fomentations made of Wormwood, St. John's-wort, Chamomile-Flowers, Elder, and ſuch like, with crude Sal Armoniack, and Pearl Aſhes, keeping the Horſe at the ſame time open with glyſters and lenitive drinks, with thoſe other things that have been preſcribed for the cure of malignant Fevers. But having treated of thoſe maladies in their proper places, I ſhould not here have mentioned them, only to rectify the miſtakes of thoſe who often do much miſchief by treating ſuch ſymptoms in the manner of the Farcy.

CHAP. X.

Of TUMORS.

A TUMOR is a preternatural riſing or ſwelling, on any part of the Body of a Horſe, for all parts may be ſubject to ſwellings of one kind or other, as well the Bones, Ligaments, and Sinews, as the Fleſh, Membranes, and other

ſoft parts; and theſe ſwellings proceed either from an external or internal cauſe, *viz.* from Wounds, Blows, Bruiſes, and ſuch like accidents, or from Fevers, which ſometimes produce critical Tumors, by which the febrifick matter is caſt off, and ſometimes Tumors proceed from ſome chronical diſeaſe.

All Tumors form'd by Fluxion or Congeſtion.

It may be further obſerved, that all Tumors are form'd by *Fluxion* or *Congeſtion*. Thoſe by Fluxion are ſuch as come ſuddenly to maturation, *viz.* where the Fibrillæ are broke, and the influx into the part haſty and violent, as in all boils and moſt critical ſwellings. Thoſe by Congeſtion advance gradually, and are properly chronical, and affect the Body according to the cauſe from whence they proceed, and the habitual temperament of the Blood and Juices, during their continuance.

All Tumors reduced by the ancients to four general kinds.

The ancients have reduced all Tumors to theſe four general kinds, as proceeding from the four principal humours, which, according to their analyſis, conſiſted of *blood*, *choler*, *phlegm*, and *melancholy*, *viz.* the *phlegmon* from blood, the *eryſipelas* from choler, the *œdema* from phlegm, and the *ſchirrus* from melancholy.

The Phlegmon.

The Phlegmon proceeding from Blood, or more properly from a Plethora, is known by its heat, tenſion, and pulſation of the principal Artery, that conveys the Blood into the part where the Tumor is ſeated, when the Veins and other returning Veſſels are broke or obſtructed, ſo as to cauſe an accumulation, or, according to the vulgar phraſe, a gathering. This kind of Tumor is the ſame we call a Boil, which

generally comes ſoon to maturity, and ends in ſuppuration.

The Eriſipelas is alſo an inflam'd ſwelling, accompany'd with heat and burning, and is more ſuperficial than the Phlegmon, and therefore the pulſation of the Arteries are ſeldom felt as in the other; ſometimes the greateſt part of the humour is caſt upon one part, ſometimes it ſhews itſelf on ſeveral parts of the Body at once, over the Skin, and near the Tendons of the Muſcles towards the Joints, with little bliſters, as happens frequently in a St. Anthony's Fire, which is an eriſipelatous diſtemper. The matter of theſe Tumors is generally thin and of an ill conſiſtence, reſembling that which proceeds from a burn or ſcald, and often of a yellowiſh hue, from obſtructions of the Liver, whereby the bile or gall being not duly ſecerned, but retain'd in the Blood, gives a tincture to the matter that iſſues from the ſores, and to ſeveral of the common ſecretions, which are alſo ting'd yellow. Of this kind, is what we may obſerve ſometimes in the Farcy, and other chronical diſtempers, of which I have already treated. The Eriſipelas.

The OEdema is a ſoft ſwelling, that yields to the preſſure of the finger, without heat, pain, inflammation, or change of colour. Under this denomination are rank'd all dropſical ſwellings, or ſuch of any kind, as are cauſed by too much humidity or flatulency. But a true OEdema, uſually proceeds from a Cold, pituitous Blood falling upon the Limbs, or any other part that has been previouſly weakened; and as in the The Œdema.

human Body theſe ſwellings generally happen to aged perſons, ſo they often prove obſtinate and hard to cure. Old Horſes in like manner are ſubject to ſwellings, that ſeem to be of the œdematous kind, which ſometimes are greatly help'd by bliſtering, firing, and laxative purges.

The Schirrus.

The Schirrus is the fourth general kind of Tumor, according to the foregoing enumeration. It is a very hard ſwelling, ſometimes intire, ſmooth, and without pain, ſometimes divided into little knots and bundles, ſeated for the moſt part among the Glands and Kernels. Of this ſort the ancients reckoned all Cancers, Scrophulas, and other ſuch maladies. But theſe generals being no ways ſatisfactory, with reſpect to the great number of Tumors of different kinds that riſe on the animal body, ſome having peculiarities that render them ſuch as cannot eaſily fall under either of theſe denominations, and ſome being of a mixed kind, participating partly of one and partly of another, either by their original formation, or by ſome degeneracy from what they were at firſt; theſe being claſs'd under a few general denominations, cauſes no ſmall perplexity, and tends only to multiply names and diſtinctions. I ſhall therefore proceed to deſcribe thoſe Tumors that are the moſt uſual and frequent among Horſes, and in the manner they are beſt known in the practice of Farriery. And in order to this, I ſhall begin with critical Tumors.

Of Critical TUMORS.

CRITICAL Tumors are properly thoſe whereby a Fever or other acute diſtemper is caſt off, and the febrifick matter is thrown out upon ſome particular part, which generally has a good tendency, when the Tumor is external, and happens to be ſeated on ſome part that is ſafe; for thereby a Horſe is uſually reſtor'd to his health as ſoon as it comes to ripen. On the other hand, internal Tumors generally affect the Lungs, or other principal *Viſcera*, and often prove mortal, or fall on the Joints, and ſometimes end in incurable lameneſs. For this reaſon, critical Tumors on the external parts, ought for the moſt part to be promoted, and forwarded by ripening ointments and poultices, where the latter can be apply'd, and ſhould by no means be repell'd.

Critical Tumors among the Parotid Glands.

Critical Tumors uſually ariſe under the Jaws, and ſometimes turn to the Strangles, ſometimes under the Ears, where with good management they ripen into matter, and caſt off the dregs of ſickneſs. I was imploy'd to two Horſes lately in dangerous Fevers, which both terminated with critical Tumors, which began among the Kernels under the Ears, and before they arrived to their ſtated ſize, ſpread a good way down the Neck; at firſt they were painful, and hindered the Horſes from ſwallowing, but by keeping them always anointed with Dialthæa, and giving the Horſes plenty of gruel to drink, and keeping their Heads and Necks cover'd, they

both ripen'd and diſcharg'd very large quantities of laudable matter, by which they both recovered. The one broke and opened of itſelf, the other was opened with a ſmall hot iron. The hardneſs and ſwelling of the Skin that remains after theſe Tumors run off, when impoſtumated, generally ſinks in a week or ten days time, only by bathing now and then with a little Spirit of Wine firſt, and afterwards with Vinegar.

Sometimes the Poll Evil and Fiſtula critical.

I have known Fevers caſt themſelves off on the Poll, and ſometimes on the Withers, the one cauſing the Poll-evil, and the other what the Farriers call the Fiſtula, both which prove troubleſome enough becauſe of their ſituation, the reaſon of which, with their method of cure, will be ſhewn in their proper place. Sometimes Fevers terminate in critical Tumors in the Groins, and cauſe very large ſwellings on the inſide of the Thigh, ſometimes ſtretching along the Sheath, and towards the lower Belly, and break near the Cleft. When the ſwelling falls downwards, it generally forms an Abſceſs between the Interſtices, a little below the Stiffle, or runs towards the Hock, where it ſeldom forms one ſingle abſceſs, but breaks in ſeveral ſmall puſtles, that without good care and judgment end in little ſcabby Ulcers, and leave a thickneſs in the Joint. I have known critical ſwellings fall into the Paſtern Joint, and ſometimes into the Coffin, both which are dangerous, and therefore ought to be breath'd out, if poſſible, with diſcutient fomentations. The following is one of the moſt efficacious that can be, in ſuch caſes.

Critical Tumors generally terminate on the hind parts of a Horſe.

Take

Take Wormwood, Chamomile Flowers, and Melilot, of each a handful; Bay-Berries bruis'd, four ounces; Wood Aſhes, a few handfuls; Wood Soot, one handful; boil in a gallon of Water till near one half is waſted. Let the part be ſtop'd with woollen Cloaths wrung out ſcalding hot, and apply'd as dry and as hot as poſſible, and renewed as often as the Cloaths begin to turn cold.

Half a pint of Spirit of Wine ſhould be added to each quart of the fomentation, juſt when it is going to be uſed, which ought to be two or three times a day, applying the cloaths wrung out five or ſix times every dreſſing, leaving the laſt cloth bound round the Joint, with a dry one over it, to keep the part continually breathing.

When theſe critical ſwellings fall upon the Coffin, the anguiſh often gets into the Coffin-Bone, and turns it foul. It breaks firſt in little Tumors round the Coronet, and then turns into a Canker, or to a Joint-water that gathers in the Coffin Joint; but theſe accidents happen more frequently from Strains or violent bruiſes than from ſickneſs; but when they proceed from Fevers, or from age, or a bad habit of body, they are perhaps worſe in their conſequences, than from any other cauſe, producing Cankers, Joint-water, and a Caries in the Bones. See ULCERS.

Of Swellings cauſed by Blows, Bruiſes, and other external Accidents.

EVERY one muſt needs be ſenſible that a Blow or Bruiſe, by whatever accident it happens, will cauſe a Swelling, either in a larger or more remiſs degree, and the Swellings cauſed by external accidents are more or leſs dangerous according to their degrees of violence, and according as the aggrieved part or member happens to be more or leſs able to bear the hurt and impreſſion.

Blows on the Head ſometimes bring Horſes into convulſive diſorders, aad prove mortal, of which I have known ſome few inſtances, and hurts and bruiſes on the Joints ſometimes cauſe incurable lameneſs. Blows and bruiſes of the fleſhy parts often produce very large Swellings, and when many of the ſmall Fibrillæ are broke, end in impoſtumation; but this is ſeldom dangerous. Horſes are frequently hurt with bad ſaddles, which ſometimes brings Navel-Galls and other Swellings that are troubleſome; alſo by kicks, and by the biting of other Horſes, who often make their attacks on the Neck, Back, and Withers, and ſometimes the Shoulder and Haunches. I have ſeen Horſes ſo much mauled and bruiſed with the Teeth of other Horſes, that the Neck, Withers, and Shoulders have been blown up to a prodigious ſize, and when the Swelling ſubſided, the *Cuticula* has come off like burnt leather, and its thickneſs equal to the uſual dimenſions of the Skin.

Some-

Sometimes Horſes are alſo very much bruiſed and hurt by getting over their bales, and their Limbs and other Parts very much ſwelled by ſuch accidents, and often the hair rubbed off, with rawneſs and excoriation; and frequently Horſes get themſelves intangled in their collar-reins, or with their halters; all which, and many other ſuch accidents, cauſe Swellings, and ſome of them to ſuch a degree, as to produce a ſymptomatick Fever.

One general intention in the method of cure neceſſary.

But, as we ſuppoſe, in all ſuch caſes, that the Blood is no ways affected, therefore one general intention in the method of cure is only neceſſary, and that is by coolers and repellers, ſuch as red or white Vinegar, old Verjuice, or compoſitions made with Alum, Vitriol, and the like; which ſhould be applied frequently to the Swelling, till the heat and inflammation is abated. In all theſe caſes, the pain draws a ſudden influx of the Blood and Juices into the aggrieved part, which raiſes a Tumor; and unleſs the Fibrillæ happen to be much broke and torn aſunder, ſo as to cauſe an extravaſation of the Blood and its ſeroſities, the cure may be eaſily affected, by applying any of the coolers abovementioned, which are not only uſeful on account of their coldneſs, but by reaſon of their roughneſs and aſperity, whereby they conſtringe the Fibres, and in that reſpect act like a bandage or any thing elſe that makes a gentle compreſſion, and thereby not only reſiſts a further influx, but forwards the impacted Juices into their proper receptacles.

The effect of coolers and repellers.

Take

Take a pint of Vinegar, and mix with it a piece of Bole, the bigneſs of a Walnut, ſhake them together.

In ſome caſes Vinegar preferable to Verjuice.

This is as proper as any thing to bath a ſwelling that comes by a bruiſe or any other common accident. The ſurgeons mix water with the Vinegar, which is their oxycrate, perhaps the better to incorporate the Bole with the mixture; but the Fibres of a Horſe are ſo rigid, that they require the Vinegar in its full ſtrength. I find alſo from experience, that good Vinegar is preferable to Verjuice, unleſs it be extremely old, and at the ſame time has no ways loſt its acid; becauſe the Vinegar being for the moſt part thinner, and not altogether ſo viſcid as the Verjuice, penetrates and enters the part to which it is applied more eaſily, and therefore often proves more efficacious; and in ſome caſes diſtilled Vinegar, or Vinegar mixed with a ſmall portion of Spirit of Vitriol, is to be preferred, where ſtronger acids and more intenſe coolers are required. A cold charge is alſo a very proper application in intentions of this kind, eſpecially to the Back, Withers, and other parts, when they have been bruiſed with the ſaddle. This is made of Vinegar, Bole, and the Whites of Eggs, to the conſiſtence of a poultice, and ſpread over the aggrieved part. A cold charge is alſo proper to be laid to ſwellings of the Joints, or any where on the Limbs, when they proceed from Strains, Bruiſes, and other ſuch aceidents; but requires to be oftner renewed than what is generally done, being apt to turn dry in a little time,

A cold charge uſual in ſuch caſes.

time, especially while the heat and inflammation continues, or while there is any anguish left; and after this a constant use of Bole and Vinegar will in most cases effect a cure, where the Blood is no ways faulty, and that there happens to be no concomitant symptoms that require the aid and assistance of other applications, as in cases where the Fibrillæ are much broke, and the serosities or grumes of Blood are lodged under the Skin, wherein proper fomentations may be of great service to thin the juices, and fit them for transpiration; or bathing the part often with a mixture of two ounces of crude Sal Armoniac, boiled in a quart of Chamber-lye, and made warm every time it is applied. But when these juices happen to be extravasated and lodged among the Fibres under the *Cuticula*, or lie deeper, and form little Abscesses, the matter may be let out by gentle scarifications, tho' I have known it usually make its way without any operation; for the teguments above it being naturally thin, rot, and come off in fleaks and scabs. This happens frequently to Horses that have been bit about the Neck and Shoulders by other Horses, which bites are generally attended with contusions, pain and stiffness, till the corrupted serosities are discharged; and when once that is done, there needs nothing more than to anoint the scabs and shrivelled skin with some softning liniment made of Oil, Bees-wax, and Spermacœti, or with Linseed Oil, which is equal to any other in all such cases. Sometimes Horses receive hurts in their Mouths by rusty or mishapen Bits, and other accidents, which,

Proper fomentations often necessary.

which, either thro' neglect or an ill ſtate of Blood, turn ulcerous; this is cured by taking Spirit of Wine and Vinegar, of each four ounces; Honey, one ounce; burnt Alum in powder, two drams; mix theſe together in a Phial, and waſh the ſores well every morning and evening: this may be of uſe in ulcerous diſpoſitions and ſores in the Noſtrils, injected up by way of Syringe.

Theſe methods here laid down, being the moſt proper to be followed, in the cure of all Tumors that proceed from blows and other ſuch accidents, which are in common to Horſes and other quadrupeds, I ſhall now proceed to thoſe that are more peculiar, and are diſtinguiſhed by their peculiar names and appellations.

Of a Bone Spavin.

A BONE Spavin is a hard ſwelling on the inſide of the Hock, and is ſo called, not only becauſe it reſembles a Bone in hardneſs, but to diſtinguiſh it from a Blood Spavin, which is ſoft, and is alſo ſeated in the Hock.

The nature of a Bone Spavin.

But, in order to underſtand the true nature of this malady, it will be neceſſary to remember what has been already taken notice of in the anatomical part, *viz.* that the two ranges of ſmall bones in the upper part of the Inſtep and lower part of the Hock, where the Spavin is ſeated, are united and received into one another, and are placed in ſuch a manner as to prevent a diſlocation of that Joint, which without them would eaſily happen, and likewiſe

TAB. XXII. *Vol. 2. p. 252.*

Fig. I.

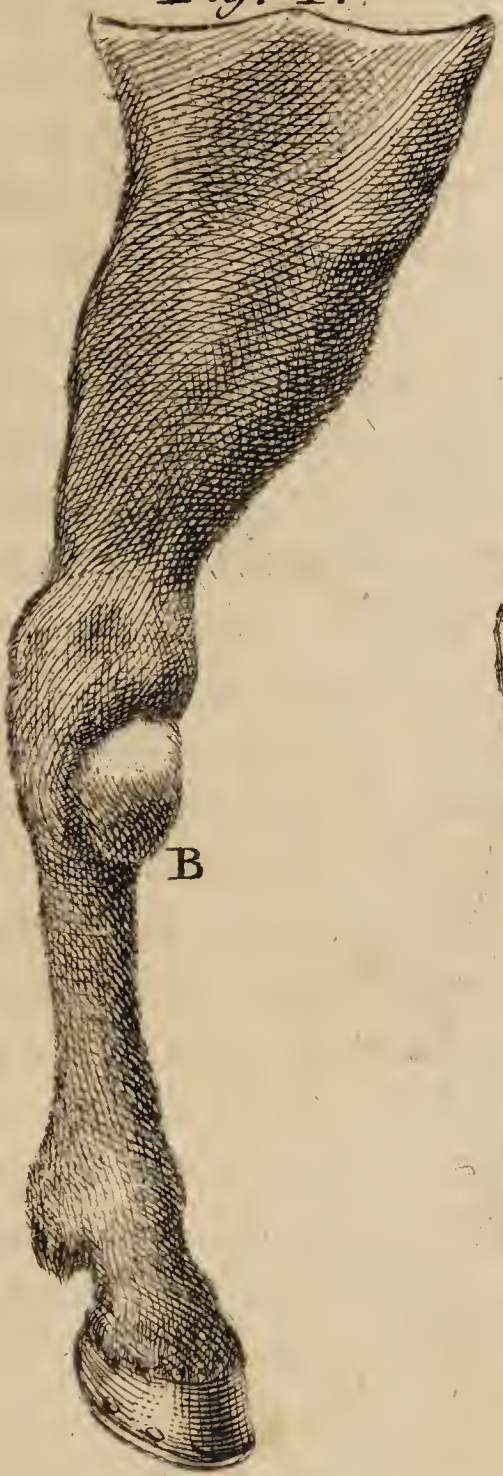


Fig. I.

wiſe to facilitate and give a ſpring to the motion of the Hock. In young Horſes, and almoſt all other young quadrupeds, they are in a great degree cartilaginous, moiſt, and pliable, which is neceſſary to quick and vigorous action, to which all young Horſes are diſpoſed by nature. In old Horſes theſe little bones grow more hard and ſolid, and are joined almoſt in one, and in a manner make a part of the Inſtep and its *Apiphiſis*, inſomuch that in ſome it is difficult to ſeparate them aſunder, which is the cauſe why old Horſes always grow ſtiff in their Joints. The cement by which they are united, is a mucilage not unlike glew, which condenſes and faſtens them very faſt together. When this happens to be redundant, and overflow, from whatever cauſe or accident it proceeds, it then forms a ſwelling under the Skin and Membranes of the Hock; and ſometimes the broad Ligament that covers theſe ſmall Bones being ſoaked with too much moiſture, protrudes and riſes into a ſwelling, which ſoon condenſes and forms a Tumor, which at firſt is no other than a hardened glew, but by length of time grows like the callus of a fractured Bone, reſembling a piece of flint, without any viſible Pores or Interſtices, except the Foramina or little Holes for the paſſage of Nerves and Blood-veſſels, ſuch as are to be found in all other Bones that compoſe the Skeleton.

The uſual cauſes of a Bone-Spavin.

From hence it will appear manifeſt, that a Bone Spavin taken its beginning and growth from the matter that nouriſhes the Bones and Ligaments of the Hock, and generally happens

to

to young Horſes that have been uſed too roughly before they are arrived to their full ſtrength, forcing them to leaps that are too high, or putting them too much upon their Haunches, which relaxes the Ligaments and Membranes, and enfeebles all the Junctures of the Hock. Sometimes Spavins are thought to proceed from natural weakneſs, and ſo to be hereditary, ſome Horſes being more ſubject to ſuch maladies than others, and put out Spavins even where there has been no violence or ill-uſage; ſometimes Spavins put out after ſickneſs, eſpecially in diſtempers that affect the Limbs; and ſometimes Spavins proceed from blows and other accidents ill-managed, or whatever elſe may cauſe too great a derivation of humidity and moiſture upon the part, as lying too long at graſs, or feeding too much with hot meat, or any other foggy moiſt diet; want of ſufficient exerciſe, or on the contrary too violent or ill-timed exerciſe. All theſe things may produce Spavins, Splents, and other excreſcences upon the Bones or Joints.

The prognoſticks.

A Spavin that begins on the lower part of the Hock, is not ſo dangerous as that which puts out higher between the two round Proceſſes of the Leg-bone; and a Spavin near the edge is not ſo bad as that which is more inward towards the middle, as it does not ſo much affect the bending of the Hock. It may alſo be obſerved, that a Spavin that comes by any common accident, as a kick or a blow, is at firſt no true Spavin, but a contuſion; and therefore is not ſo dangerous as when it proceeds

ceeds from a natural cauſe; neither are Spavins that put out on Colts and young Horſes ſo bad as thoſe that happen to Horſes in their full ſtrength and maturity; and in very old Horſes they are ſeldom curable, being the effect either of ſome violent diſtortion of the ſmall Bones above-mentioned, or of ſome very ill habit of Body.

The uſual method of curing a Bone-Spavin is by bliſters and firing, without any regard to the ſituation or cauſe from whence it proceeds. If a fullneſs on the fore-part of the Hock comes upon hard riding, or any other violence, threatning a Spavin; in that caſe, coolers and repellers are only proper, *viz.* a cold charge bound round the part, and renewed ſeveral times a day, with the other method above preſcribed in bruiſes and contuſions; but if the ſwelling be owing to other cauſes, it ſhould be treated accordingly. Spavins that happen to Colts and young Horſes, are generally external and ſuperficial, and may be cured with milder applications than what are commonly made uſe of for their removal, and with leſs danger of breeding calloſities in the Joints; for it is better to wear out theſe maladies by degrees, than to ſtrive to conquer them all at once. The cure.

The bliſters or cauſticks commonly uſed to take off Spavins, are made with Euphorbium, Arſenick, or corroſive Sublimate, in the following manner, *viz.* Hog's Lard and Train Oil, of each an ounce; Bees-wax, two ounces; Honey and Nerve-Ointment, of each two ounces: theſe being melted, and the mixture al-

moſt

moſt cold, they add half an ounce of Sublimate Corroſive, and two drams of Euphorbium in fine powder. A ſufficient quantity of this is ſpread on the part pretty thick, ſometimes ſucceeds when it digeſts and runs. I have ſeen many recipes of this kind that have been tried with various ſucceſs, but for the moſt part they leave a continual baldneſs, and often a remaining ſtiffneſs, which can never be removed. Some make their bliſtering ointments after this manner, *viz.* Ointment or Oil of Bays, and Nerve-Ointment, of each an ounce; Spaniſh Flies in powder, about a dram; Sublimate, two drams. Others uſe Euphorbium alone without the Sublimate; but that is not ſo well, for the Euphorbium is of a cauſtick nature, but ſeldom enters further than to harden into a ſcab or thick ſcurf, without coming to digeſtion, and therefore often cauſes much pain, heat, and anguiſh; and by that means derives a flux of humours upon the Hock, ſo as even to affect the nervous parts, which ought to be avoided. Some mix Butter of Antimony with their bliſters, others only clip off the hair, rub the Spavin till it is almoſt raw, and then lay on a plaiſter with Pitch and Sublimate, or Arſenick, and let it lie on till it fall off, when it brings along with it a thick ſlough, but ſeldom with any good effect. Many of theſe things, and ſuch like, I have known tried to take off Spavins, but never found them ſucceed ſo well as the following, only that it muſt be often repeated, and ſo requires a good deal of time before the cure is complete and perfect.

Take

Take Nerve-Ointment and Ointment of Marſh-mallows, of each two ounces; Quickſilver, an ounce; the Quickſilver muſt be rubbed in a mortar, with an ounce or an ounce and an half of Venice Turpentine, till it is of a lead colour, and that none of the globules appear. Then mix it with the other, and when theſe are well incorporated, add a dram and an half of Cantharides, made into fine powder; one dram of Sublimate, and two drams of Oil of Origanum.

The Cantharides muſt be freſh, not of a yellow or brown colour, nor of a fœtid ſtinking ſmell; for if they be corrupted and rotten, they loſe their efficacy. The hair is to be cut as cloſe as poſſible, and then the Ointment or Retoire applied pretty thick over the part; this ſhould be done in the morning, and the Horſe kept tied up all day, without any litter under him till night, only ſo much as will encourage him to ſtale, if it be his cuſtom to ſtale upon his litter; at night he may be untied, that he may lie down as uſual, for by that time the bliſter will begin to take effect; and a plaiſter of pitch may be laid over it, or any other ſticking plaiſter bound on gently with a piece of broad tape or liſt.

After the bliſter has done running, and the ſcabs begin to dry and peel off, it may be applied a ſecond time in the ſame manner as before. The ſecond application generally takes much greater effect than the firſt, and ſometimes in Colts and young Horſes makes a perfect cure; but when the Spavin has been of

ſome ſtanding, it will require to be renewed, perhaps five or ſix times, only that after the ſecond application, a greater diſtance of time muſt be allowed, otherwiſe it might leave a ſcar or cauſe a baldneſs; and to avoid this, and to prevent a remaining ſtiffneſs, I uſually cauſe a freſh application to be made once in a fortnight or in three weeks, which always has a good effect, eſpecially upon young Horſes that abound much more with moiſture about their Joints than thoſe that are old. I have continued bliſtering in this manner ſix or ſeven times, without the leaſt blemiſh, and have ſeldom been diſappointed of ſucceſs. The Horſes have conſtantly had their exerciſe in a moderate degree between whiles, and ſometimes mild purging phyſick, and diureticks at proper intervals, and afterwards Guiacum boiled and mixed with their water, the better to promote perſpiration, and to dry up ſuperfluous humidity, which I conceive to be a help in all caſes proceeding from viſcid juices and relaxed habits. And in ſuch caſes I likewiſe keep them from the uſe of moiſt diet, except when they take purges, and then I allow them but ſmall feeds of ſcalded bran, their common diet being only oats with the drieſt and ſweeteſt hay that can be got; for a moiſt diet, long continued, relaxes the whole habit, and muſt therefore be improper, if not prejudicial in all ſuch caſes.

Spavins in old Horſes ſometimes obſtinate.

But the Spavins that put out on older or full-aged Horſes are apt to be more obſtinate, being the effect of ſome ill habit of body, but chiefly of Hurts and Strains, whereby the ſmall Bones

of

of the Hock are jarred and looſened; for this ſort is always ſeated more inward than that above deſcribed, which riſes more ſuperficial and flat; and therefore, when the Spavin puts out towards the hollow and riſes upwards, it proves obſtinate, and hard to cure; and if it run inwards among the ſinuoſities of the Joint, it is for the moſt part incurable, becauſe it lies then very much out of the reach of applications. In an outward ſuperficial Spavin, the Horſe only goes ſtiff at firſt, and the Spavin ſoon appears plain and viſible to the eye; but in the other, a Horſe ſometimes goes lame a conſiderable time before the Spavin ſhews itſelf, and ſo paſſes only for humors. I have known Horſes in theſe circumſtances purged and oiled both in the Hock and Stiffle, till a Spavin has been diſcovered deeply ſituated, and extremely hard.

When Spavins are like to prove incurable.

This caſe is both difficult and uncertain, not only becauſe of its ſituation among the ſinuoſities of the Joint, but becauſe it is, for the moſt part, condenſed to an obſtinate hardneſs and inſenſibility, before it grows ſo much outward as to be diſcovered. The uſual way in ſuch caſes is to fire directly, or to uſe the ſtrongeſt kind of cauſtick bliſters, and ſometimes to fire and lay the bliſter immediately over the part; but this method ſeldom ſucceeds ſo far as not to leave both a blemiſh and a continual ſtiffneſs behind it, though indeed it may put a ſtop to any further growth of the Spavin, and the Horſe, notwithſtanding the ſtiffneſs, may be uſeful in ſeveral buſineſſes. I ſhould therefore firſt of all chuſe to try a more gentle method, becauſe

Horſes are often worſe after the uſe of forcible means to remove Spavins than they were before, which breeds ſuch a diſpoſition in the part, as ſcarce leaves room for any further trial, it being difficult to keep a juſt medium where ſuch powerful applications are made; for though the Bones, and all bony excreſcences are of themſelves inſenſible, and without pain, except when they turn carious, yet whoever conſiders the many tendinous and nervous ſubſtances about the Joints, will eaſily be convinced, that pain and anguiſh muſt be be unavoidable when theſe are touched with fiery and cauſtick applications; and we ſee daily inſtances how eaſily theſe ſenſible parts are hurt, even from the moſt trifling accidents. And therefore, if the owner can be perſuaded to allow ſufficient time, the beſt and ſafeſt way is to make trial of ſome mild cauſtick or bliſter, ſuch as the bliſtering ointment above inſerted. The firſt application will probably prevent the increaſe of the Spavin, and the continuing it, according to the preſcribed method, will ſometimes cauſe a diſſolution of the hardneſs, and ſo wear it out inſenſibly by degrees. Of this I have had inſtances in my own practice; the bliſtering at times was continued ſeveral months; the Horſes were alſo made uſe of in the intervals to all common buſineſs, except hunting or other very laborious exerciſe; ſo that they were not altogether a charge and burden to the owners. A very fine Horſe belonging to an officer of diſtinction in the army, was cured of a large Spavin by this method, even after he had been fired, and the part rendered

dered extremely hard and callous, for the ſpace of two years or upwards; and when he recovered his lameneſs, I cauſed him to be fired again, very gently, all over the Hock, but in ſuch a manner as to leave little or no ſcar or disfigurement. I took this method to ſecure him, being a managed Horſe, and having a natural diſpoſition to go upon his Haunches, which tries the Hocks and Paſterns more than any other action.

However, ſome Spavins lie ſo deep, and run ſo far into the hollow of the Joint, that no applications can reach them, ſo as to make a perfect cure; and ſometimes Horſes have been rendered altogether uſeleſs by the attempts that have been made to remove them. A charge or cauſtick ointment, with Sublimate or Arſenick, is the moſt likely to ſucceed in this caſe, if it be uſed with proper cautions; becauſe theſe things will act forcibly, ſo as to enter deep, and make a very large diſcharge, and by that means deſtroy a great part of the ſubſtance, and perhaps cauſe the remainder to diſſolve and run off. I have known ſome bold ignorant fellows ſucceed in ſuch caſes, tho' more by accident than from a ſound judgment. The ſame thing has been done by firing deep into the Spavin, whereof I ſhall relate a very extraordinary inſtance in my own practice, of a very fine Horſe belonging to a nobleman, who ſet the higheſt value upon him, on account of his beauty and goodneſs; but having, with exceſſive hunting, put out a Spavin, that was ſeated extremely deep in the Hock, and being left wholly to my option

Sometimes bold attempts ſucceed in the cure of obſtinate Spavins.

An inſtance of a very fine Horſe cured.

tion to do what I would with him, I firſt applied a very ſtrong cauſtick, which brought off a thick ſlough, and made the ſwelling flattiſh at top, but without any diſcharge beſides a little moiſture, which ſoon dried up and healed; and not caring to venture further with the cauſtick, for fear of hurting the tendons and ligaments, I judged it would be ſafer to fire, becauſe an inſtrument is under the guidance of the hand, whereas a cauſtick may ſometimes either diſappoint us, by failing in what we intend from it, or deceive us by going further than we could wiſh. The irons for this operation were made in the ſhape of a fleam, that they might go deep into the ſubſtance of the Spavin, only they were not pointed as a fleam, but rounded on the face, and made thick towards the back, that they might retain the heat. In this operation ſome ſmall Blood-veſſels were cut through, which could not be avoided, and cauſed a pretty large effuſion of Blood, till it was ſtopped with a ſtyptick. The wound was about half an inch deep, and an inch in length, with two or three ſhort ſtrokes or lines on each ſide. It was kept with a dreſſing of dry tow till the third day, that the bleeding might be fully ſtopped; nothing was diſcharged for ſeveral days but a gleet of viſcid water; during which time he was in great pain, and his Hock ſwelled very much, which ſymptoms was removed with fomentations, ſuch as are recommended for punctured wounds. The firſt dreſſings were only Turpentine ſpread on tow, afterwards mixed with Precipitate finely ground, *viz.* two drams to an ounce

ounce of the Turpentine. It continued a plentiful discharge of a thin glutinous matter, for about two months before the Skin began to close and cover the wound, when the matter came to be of a good colour and consistence, and lessened every day in quantity. The Horse began to move his Hock very nimbly, and to go a little beyond walking exercise. So much of the Precipitate as could enter into the nervous parts of the Hock, was certainly a very great benefit, and contributed to a perfect cure, as it kept the wound always clean and the Joints fine. In the space of three months the sore was quite healed up and covered with Hair, except about the bigness of a farthing, over which I caused a defensive plaister to be laid. He was purged during the time of his cure, and in four months he went through all his exercises, and hunted the first season, and every season afterwards, perfectly free from all lameness.

Distortions of the small bones of the Hock sometimes mistaken for Spavins.

But when an old Horse happens to put out a Spavin, it is commonly the effect of some violent wrench or strain of the Hock, and for the most part proves incurable, especially if the small Bones be any ways jarred or displaced, which sometimes happens; and when it is so, the swelling generally appears on the middle and fore-part of the Hock, and not towards the side of the Hock, as almost all Spavins do. The Horse is always extremely stiff, and scarce able to move; but this is properly a luxation, and not a Spavin, as has been observed already. And therefore, if any thing be done to remedy

this malady, it muſt be to force the Bone into its place; to fill up the fore-part of the Hock with tow, and the cavities on each ſide; and all the other cavities and vacant ſpaces ſhould likewiſe be filled with the ſame, applying a piece of paſte-board ſoaked in Vinegar on the inſide over the diſtortion, binding the whole with a roller or a piece of broad ſoft liſt, and the Horſe ſhould not be put upon exerciſe for a conſiderable time. But when Horſes meet with ſuch unlucky accidents, they are ſeldom fit for any thing afterwards but to draw in ſome light eaſy carriage. A true Spavin in an old Horſe proves no leſs difficult; and in ſuch caſes, firing all round the Hock, and afterwards turning them out to graſs, is the moſt likely to ſucceed, ſo far at leaſt as to fit them for ſome ſort of buſineſs; though the ſtiffneſs of the Hock will be but little abated, even if the Spavin be removed, ſtiffneſs and bending of the Joints being an infirmity to which all old Horſes are more or leſs ſubject, even where there is no manifeſt malady or diſeaſe.

Of a CURB.

A Curb deſcribed.

AS a Spavin riſes among bones on the fore-part of the Hock, ſo a Curb takes its origin from the junctures of the ſame bones, and riſes on the hind-part, forming a pretty large tumour from below the *Capellet* or Heel of the Hock, and running a good way along the back-part of the Hind-Leg, covering the *Apiphyſis* of the Inſtep Bone, and in ſome gummy Horſes ſpread-

ſpreading itſelf on both ſides the Leg, attended with ſtiffneſs, and ſometimes with pain and lameneſs.

A Curb proceeds from the ſame cauſes that produce Spavins, *viz.* hard riding, ſtrains, and other ſuch like accidents, eſpecially from blows, and frequently from kicks of other Horſes; all which bring on Curbs, when they are neglected and not taken care of in time. Sometimes a Curb riſes where no hurt or accident has happened, even when a Horſe has ſtood ſtill in the ſtable doing nothing, and ſometimes when running abroad at graſs, and then it is generally the effect of a viſcid ſizy Blood; which kind of temperament is apt to derive too great an accumulation of ſerioſities upon the Joints; and therefore young Horſes that have very large Joints, eſpecially thoſe of the heavy breed, are the moſt ſubject of all others to Curbs and other cold pituitous Swellings; and of the ſaddle-breed, ſuch as are ſomewhat arched in their Hind-Legs, and have naturally a little ridge or riſing below the Heel or point of the Hock. Sometimes a Curb appears on one Leg only, and ſometimes on both, in the ſame manner as the Spavin; but there is ſeldom any danger of a continued lameneſs from Curbs.

The cauſes of Curbs.

The heavy breed moſt ſubject to them.

The Cure is eaſy, and may be done with bliſtering alone, tho' it may be neceſſary in ſome to fire and bliſter both. I have cured many with the mild bliſtering ointment preſcribed for the Spavin, and ſometimes with one or two applications, and without the leaſt ſcar or loſs of hair; but if the Curb be grown exceſſive hard and

The Cure.

and obſtinate by long continuance, the quickeſt and ſureſt way is to fire with a thin iron, making a line down the middle from top to bottom, and drawing ſeveral lines in a penniform manner, like a feather on each ſide, pretty deep, applying a little mild bliſter over the part, and when it has done running, a charge of the *Ad Herniam* or rupture plaiſter, which may be had at any apothecary's. This method will utterly remove the Curb. Purging is alſo neceſſary after the cure, eſpecially in groſs bodied Horſes that are full of Blood, and ſometimes diureticks, ſuch as are preſcribed for ſwelled Legs.

Purging ſometimes neceſſary after the cure of a Curb.

Oſſets are little hard ſubſtances that ariſe amongſt the ſmall bones of the Knee, on the inſide; they grow out of the gummy ſubſtance, which faſtens thoſe bones together, from Strains while a Horſe is young, before his Joints are well knit; they are not common, and if obſerved in the beginning, a little Oil of Origanum rubb'd on the part every other day, will diſſolve and take them off; but if they are of long continuance, they are difficult to be removed. Firing is the moſt certain method to effect a Cure.

Solleyſell takes notice of another ſwelling on the outſide of the Hock, which he calls a Jardon; he ſays it cauſes a Horſe to go ſtiff and lame, and that it proves ſometimes of evil conſequence. I have ſeen many of theſe Swellings, but ſeldom any of them attended with much lameneſs, for they commonly proceed from blows or kicks of other Horſes, and ſuch like accidents; and unleſs they are at firſt neglected,

TAB. XXIII. *Vol. 2. p. 267.*

Fig. I.

Fig. II.

glected, or ſome little proceſs of a bone be broke, which may by chance happen, they are no ways dangerous, becauſe they do not much affect the motion of the Joint, and at firſt, may for the moſt part be cured with coolers and repellers, ſuch as Vinegar or Verjuice, often applied. However, any ſwelling on a part ſo prominent as the Hock, is always a great eye-ſore; and if it continues hard and inſenſible, the beſt way is to bliſter or fire. I have cured many Horſes with mild bliſters alone, and in ſome obſtinate caſes have cauſed them to be fired, and can hardly remember any one inſtance where a cure has not been performed by one or other of theſe means.

Of a RING-BONE.

THIS is a hard ſwelling on the lower part of the Paſtern, which generally reaches half way round the fore-part thereof, and reſembles a ring, from whence it is called a Ring-Bone.

The Ring-Bone has an affinity with the Bone-Spavin.

A Ring-Bone has an affinity to a Bone-Spavin, and for the moſt part proceeds from the ſame cauſes; for as a Bone-Spavin generally riſes from the junctures of the ſmall bones of the Hock, and derives its nouriſhment from the ſame ſupplies of matter by which theſe are conjoined, ſo the Ring-Bone for the moſt part takes its origin from the juncture of the great and little Paſtern-bones, being laid together only by a kind of appoſition, having but a ſlender articulation, and with the ſame kind of cement, and in the ſame manner in which all other

other bones that are not ſuited to various motions, become united. And this mechaniſm not only preſerves the Paſtern from being ſo eaſily broke as might frequently happen if it was all of one continued bone, but gives a ſpring to the motion of a Horſe's Hind-feet, as the ſmall bones of the Hock give a ſpring to the motions of the Leg, which has been already obſerved, both in the account of a Bone-Spavin and in the anatomical part, to be neceſſary in all their goings; and therefore a Ring-Bone always cauſes a ſtiffneſs in the motion of the Paſtern and Foot; and when it grows large and hard, cauſes lameneſs, eſpecially when it falls downwards towards the Coffin Joint.

The cauſe of Ring-Bone.

It has been already obſerved, that a Ring-Bone proceeds from many of the ſame cauſes that produce Spavins, and is nouriſhed by the ſame kind of matter. The external cauſe of a Ring-Bone is often from Strains in the Paſtern, or hard riding on dry roads, or when the Paſtern has been jarred or wrung in deep clay roads, either in travelling, or at graſs in potchy clay grounds. Theſe things uſually produce Ring-Bones. Some Horſes are naturally ſubject to Ring-Bones, eſpecially thoſe that are groſs and bony about their Legs and Paſterns; for theſe ſometimes put out Ring-Bones naturally with other hard excreſcences; and therefore, when a fine limbed Horſe happens to have a Ring-Bone, we may conclude it to proceed from ſome accident rather than from any natural fault, *viz.* from ſome violent Strain, ſhakling an unruly Horſe, or if it be behind, by putting young

Horſes

Horſes too early upon their Haunches in the riding-ſchools; for in that attitude a Horſe throws his whole weight, as much, if not more, upon his Paſterns than upon his Hocks.

When a Ring-Bone comes by any accident upon a clean limb'd Horſe, it is ſeldom ſo dangerous as when it happens to Horſes that are groſs about their Paſterns, that have large Bones, and are fleſhy in thoſe parts, for when the ſwelling is removed, the ſtiffneſs often remains. A Ring-Bone is always eaſier cured when it appears diſtinct round the Paſtern, than when it ſpreads downwards towards the Coronet, for then it is apt to affect the Coffin Joint, if it does not derive its origin from ſome ſtrain or defect in that Joint originally; in which caſe the cure will be dubious and uncertain, and ſometimes impracticable, when a calloſity is found under the round Ligament that covers that Joint, and even when it happens more external; it proves alſo dangerous when it unites with, or ſpreads the ligamentous ſubſtance that joins the Hoof to the Fleſh; it is apt to turn to a Quittor, and in the end to form an ulcer under the Hoof. The prognoſticks.

A Ring-Bone that riſes on the Paſtern is eaſily cured, when it does not run downwards towards the Coronet. I have known the Ring-Bones, that ſometimes appear on Colts and young Horſes, inſenſibly wear off of themſelves, without the help of any application; but when the ſubſtance remains, there needs no other remedy beſides bliſtering, unleſs when by long continuance it is grown to a very obſtinate hardneſs, and then it may require both bliſtering

and firing. If the ſwelling proceeds only from the Tendons and nervous parts, which ſometimes is not eaſy to be diſtinguiſhed from a true Ring-Bone, except only that a true Ring-Bone is leſs painful, unleſs it proceed from the Coffin Joint. In this caſe bliſtering alone almoſt always proves ſucceſsful, and I have had many Horſes cured by the mild bliſter above preſcrib'd, without any other apparatus beſides renewing it two or three times, or according to the urgency of the ſymptoms; and if along with the Ring-Bone, the Legs have a diſpoſition to ſwell, I order ſome few purges to be given, and ſometimes diuretick drinks. But in a true Ring-Bone, where the ſubſtance is hard like a piece of flint, and altogether inſenſible and without pain, firing is the only thing to remove it. And the reaſon why ſome are ſo apt to miſcarry in firing, is becauſe they draw the lines too ſparce, almoſt an inch diſtance between them, which always leaves the part full of ugly ſcars, and only divides the ſwelling, which before was one continued ſubſtance, into a great many leſſer ones, without removing the ſtiffneſs or lameneſs that attends it. The only way therefore to fire a Ring-Bone ſucceſsfully, is to perform the operation with a thinner inſtrument than what is common, and to make the lines or raſes not above a quarter of an inch diſtant, and croſſing them obliquely ſomewhat like a chain, applying a mild bliſter over all; and when that is quite dried up, and before the Hair is grown, lay on the following charge.

Firing the only method to remove a true Ringing.

Take

Take Ad Herniam, or Rupture Plaiſter, eight ounces; Yellow Roſin, and Bees Wax, of each three ounces; melt them together, and make a charge to be ſpread over the Paſtern Joint, covering the whole with Flokes, or with the ſtuffings of an old ſaddle, which is as good as any thing for this purpoſe.

When the Ad Herniam Plaiſter is grown hard with age, a little oil may be added in melting, leſt the charge ſhould be too brittle, and ſo crumble off. And as ſoon as the Horſe has reſted two or three days in the houſe, and the charge ſettled to the part, the beſt way will be to turn him to graſs, that he may run abroad at his eaſe, in ſome dry ſmooth paſture; and if in winter, where he may have a covered place to go into, for wet deep ground is hurtful in all ſuch caſes, eſpecially when a Horſe has been but newly fired. But where there is no conveniency for graſs, or if the owner has immediate uſe for him, he may be worked moderately, after he has been fired three or four weeks, provided he be kept as much as poſſible out of the wet, till the part has gathered ſufficient ſtrength, and that the ſwelling is in a great meaſure gone.

THE ſame method is to be followed when the Ring-Bone falls towards the Coronet or the Coffin Joint. For the lower end of the Paſtern Bone being naturally ſpungy and porous, is apt to produce ſuch ſwellings, eſpecially in ſome conſtitutions, which ſwellings cannot be ſo readily repreſſed and taken down by any other method

thod as by firing and cauſtick applications, which may be made all over the Coronet without any danger, by a careful management of ſuch things. The ſame charge being applied, after bliſtering and firing, as before directed, will contribute greatly to give ſtrength and firmneſs, and prevent the humours from ſettling any more upon the part, and the other ill conſequences which have already been mentioned, ſuch as Quittors and Ulcerations under the Hoof. Some, to prevent theſe accidents, pull out the Sole, but this ſeldom ſucceeds in a Ring-Bone to any good purpoſe; for the drawing of the Sole makes but a ſmall diſcharge, and will do ſervice where there are ulcerations any where about the Coronet or Foot; but ſeldom or never in the caſe of horny and bony excreſcences, which can never yield ſo well to any method as to that already laid down, which I have always found from experience to be both the moſt certain and expeditious.

The drawing of the Sole ſeldom ſucceſsful in Ring-Bone.

Of SPLENTS.

The nature and cauſe of Splents.

THESE are hard excreſcences that grow out on the Shank-bone. They are of various ſhapes and of different ſizes, ſome being large and ſome ſmall, ſome being long and ridg'd, others round. When a ſingle Splent riſes on one ſide of the Bone, and another oppoſite to it on the other ſide, it is called a thorough Splent; or when the ſwelling lies on the hind-part of the Bone between it and the Back-ſinew, it obtains the ſame name, becauſe it is fixed there like a wedge,

TAB. XXIV. *Vol. 2. p. 272.*

Fig. II.

Fig. I.

wedge, and generally reaches acroſs from ſide to ſide.

What Horſes moſt ſubject to Splents.

Some Horſes are by nature more ſubject to Splents than others, and young Horſes are moſt ſubject to ſuch infirmities while their Joints and Limbs are relaxed with viſcid and mucilaginous juices. For few Horſes put out Splents after they are ſeven or eight years old, unleſs it be owing to ſickneſs or ſome accident; and indeed kicks and blows on the bony part of the Legs, either before or behind, will ſometimes turn to hard excreſcences participating of the nature of a Splent; for theſe bones being open and porous at both their extremities, when the matter that nouriſhes them is extravaſated, it will eaſily condenſe and harden, ſo as to produce infirmities of this kind.

Thoſe Splents that appear on the Legs of Colts and young Horſes often wear off and diſappear of themſelves, without the uſe of any means, when the matter is not ſo far condenſed; but it may be returned again into the refluent Blood in the courſe of circulation, eſpecially as the nervous parts, which in young Horſes are of a lax diſpoſition, grow more firm as they advance in maturity, and acquire a better tone; but when a Splent has been of ſome continuance, grown very hard, and the Skin altogether looſe over it, it is a ſign the ſubſtance is quite oſſified, and then it will be almoſt in vain to meddle with it. When the excreſcences happen on the Hind-Legs, which is but ſeldom, they are little regarded, unleſs they are ſituated near the Joints of which kind is the Bone-Spa-

vin already treated treated of; for all theſe things have one original and univerſal cauſe, and are chiefly diſtinguiſhed by their ſituation. A Splent that riſes near the middle of the Shank-bone, or tho' it be higher, unleſs it be near the bending of the Knee, it is noways dangerous ſo as to cauſe Lameneſs. Thoſe that riſe on the Back-part of the Shank-bone, when they grow large and preſs againſt the Back-ſinew, always cauſe lameneſs or ſtiffneſs in travelling, by rubbing againſt that Sinew; and thoſe that riſe low near the Paſtern Joint, ſometimes alſo endanger Lameneſs, but theſe ſeldom happen, unleſs they are cauſed by ſome accident; for moſt Splents put out from the upper *Apiphyſis* of the Shank-bone, at a pretty good diſtance from the Knee, ſometimes on the outſide, ſometimes on the inſide, and ſometimes on the front or ſpine of the Bone, but in a manner that no ways affect the motions of the Knee.

Few Splents cauſe Lameneſs, unleſs they participate with the Joint.

The cure of Splents.

As to the cure of Splents, there are many methods preſcribed, and there are many pretend to it, whom I have ſeen often diſappointed; tho' I think the beſt way is not to meddle with them, unleſs they happen to be ſo large as to disfigure a Horſe very much, or when they are ſo ſituated as to endanger a Horſe's going lame. I have known ſome fine uſeful Horſes that have have had ſeveral Splents on both their Fore-legs, and ſome uneveneſſes on their Hind-legs, that were never tampered with, becauſe they never went lame; for thoſe who are the leaſt acquainted with ſuch things, are always apt to be the moſt buſied with them, and the moſt ſolicitous to have them removed. The uſual way is

to

to rub the Splent with a round ſtick, or the handle of a hammer, till it is almoſt raw, and then touch it with Oil of Origanum. Some uſe Oil of Vitriol, ſome Tincture of Cantharides. Others lay on a plaiſter of pitch, with a little Sublimate or Arſenick, to deſtroy the ſubſtance; all which methods have ſometimes ſucceeded, only that they are apt to leave a ſcar with the loſs of Hair; and therefore the Tincture of Cantharides is the moſt harmleſs, but in many caſes too weak to remove Splents. And I have obſerved thoſe applications that are of a more cauſtick nature, often do more hurt than good, eſpecially when the Splent has grown very hard and flinty, by producing a kind of Caries, which I have known ſometimes keep running ſeveral months before the Ulcer created by this management could be healed, and then with an ugly ſcar, and little or no diminution of the Splent.

When Splents are new, and only beginning to appear, the beſt way is to bath all the ſmall of the Leg with Vinegar or old Verjuice; theſe things, by ſtrengthening the Fibres, often put ſtop to their growth, ſo that they wear awaa inſenſibly. In ſome conſtitutions, purging, and afterwards diuretick drinks, made with Roſin, Sal Prunellæ, and Smith's Forge Water, will be a great means to remove the humidity and moiſture about the Limbs, that often gives origin to all ſuch excreſcences. But if the Splent be near the Knee, and cauſe Lameneſs, it muſt be treated in the ſame manner as a Bone-Spavin, by bliſtering and firing all over it, and over the parts

A Splent near the joint to be treated as a Bone-Spavin.

parts that are any ways affected by it. Splents on the back of the Shank-Bone, behind the Back-Sinew, are troubleſome, and often with exerciſe cauſe the Sinew to ſwell; they are the more difficult to cure that they are covered with that Sinew, and with ſome branches of Blood-veſſels on each ſide, where the Veins ſometimes form Varixes that are exceeding painful, by the frequent frictions of the Splent upon them, as often as the Horſe is in motion. The cure here is often doubtful; but the likelieſt way is to bore the Splent in ſeveral places, with an iron not very hot, avoiding the Veins and the Back-Sinew, and then firing all over the back part of the Leg, in the common way, like a feather, not making the lines too deep but very cloſe together, that a ſufficient portion of the particles of fire may enter; nevertheleſs, I ſhould, in the firſt place, prefer mild bliſters often repeated, as recommended in the cure of a Bone-Spavin, which I have found to anſwer beyond expectation, and without the hazard of any ill accident, or any remarkable disfigurement.

Of WINDGALS, and other flatulent or windy Tumors.

HAVING treated of the various kinds of hard ſwellings that are peculiar to Horſes, I now proceed to thoſe that are of a ſoft flatulent kind, commonly known by the name of Windgals.

A Windgal deſcribed.

A Windgal is a flatulent windy Tumor, which yields to the preſſure of the finger, but upon

TAB. XXV. *Vol. 2. p. 277.*

Fig. II.

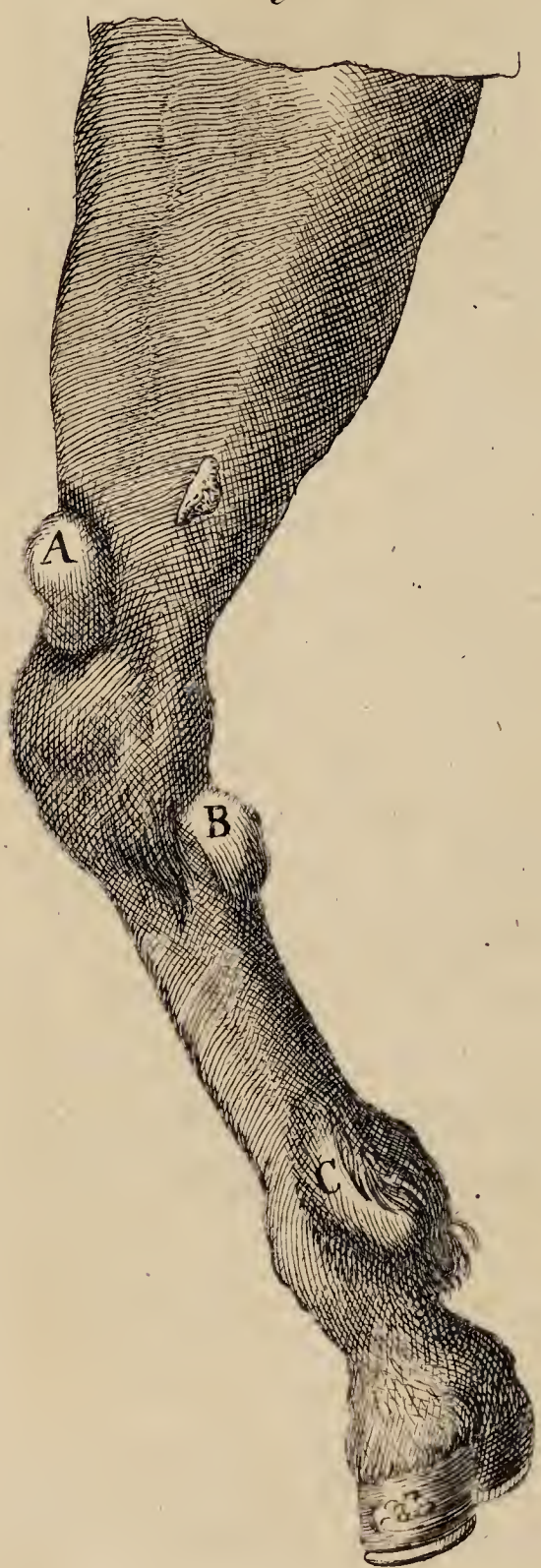
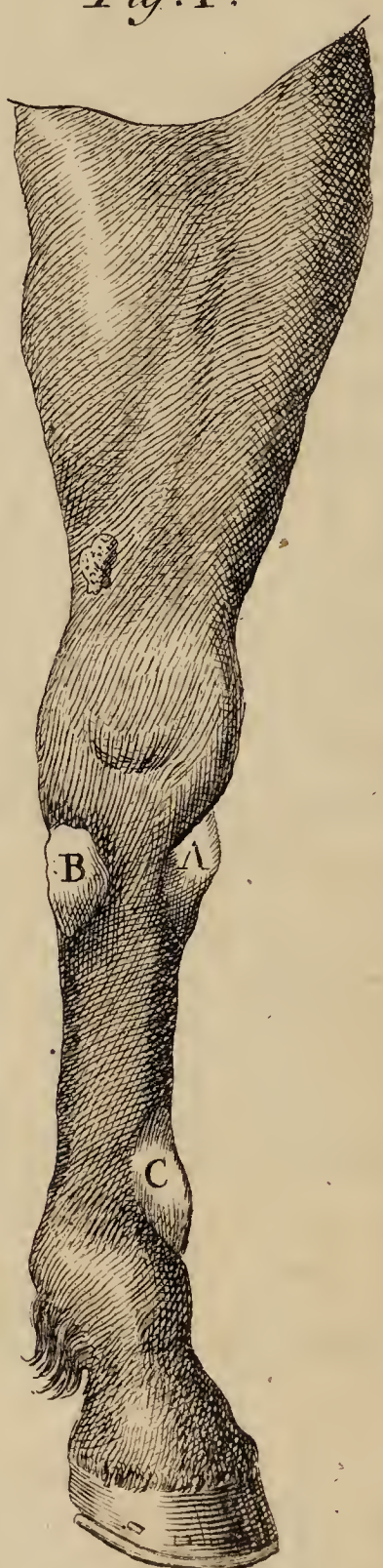


Fig. I.



upon removing the finger, recovers itſelf and puſhes out as before, cauſing an elevation of the Skin, ſo as to be plain and viſible to the eye.

Windgals are often ſeated on both ſides of the Back-Sinew, above the Fetlock on the Fore-legs, but moſt frequently on the Hind-legs; they are quite looſe and unfixed, and exhibit the ſame ſigns wherever they are ſituated, whether in the Hocks or about the Knees; for theſe kind of ſwellings are not confined to the lower Limbs only, but appear in divers parts of the Body, wherever the Membranes can be ſo ſeparated, that a portion of air and ſeroſities may be included within their duplicatures; and for the moſt part without pain.

The cauſe of Windgals.

They are uſually cauſed by riding on very hard roads or on dry hilly grounds, which, by keeping them pretty much upon the ſtretch, ſeparates the Membranes, ſo as to give admiſſion to the air, with a repletion of all the membranous Fibres. Sometimes travelling Horſes, when they are too young, before their Limbs are grown firm and nervous, will bring Windgals, and ſometimes Windgals proceed from a naturally relaxed conſtitution, and weakneſs about the Limbs, eſpecially large carcaſſed Horſes, that are ſomewhat underlimbed, and fleſhy about the fetlock Joint; ſuch I have known to have Windgals, without any ſtrain, hard riding, or other ill uſage.

Prognoſticks.

When Windgals come on the Hind-legs, they never cauſe Lameneſs, but ſuch Horſes are often ſtiff behind after riding; when they come on the Fore-legs, they always make a

Horſe go lame at firſt, but afterwards that tenderneſs goes off in a great meaſure, and they ſeldom go lame, but ſtiff, and inclinable to ſtumble, which they generally recover with a day's reſt; for there is always pain upon the firſt ſeparation of the Membranes and the firſt entrance of air; but when theſe are filled to the utmoſt ſtretch, the vellications cauſed by the motion of the Limbs are more uniform, and not ſo painful. Thoſe Windgals and flatulent Swellings that come in the ſinuoſities of the Hocks, are always troubleſome, are a very great disfigurement, and unleſs they are ſpeedily prevented, will intail incurable Lameneſs; at firſt they are but ſmall, but in time grow to the ſize of pullets eggs, and puſh out on each ſide the hollow of the Hock. I have alſo ſeen flatulent Swellings of the ſame kind above the Knee, where they always cauſe Lameneſs, even tho' the ſwelling or puff be but ſmall; and I have ſeen flatulent Swellings juſt under the fore-part of the Knee, in the Interſtices of both ſides of the Joint, which are alſo dangerous; but theſe ſeldom happen, and are uſually cauſed by ſome violent ſtrain or wrench, eſpecially when a Horſe falls downwards upon a deſcent with his whole weight upon his Knees. The other flatulent Swellings Horſes are ſubject to, ſeldom cauſe Lameneſs, and are for the moſt part eaſily cured; I mean thoſe that happen in the Interſtices of the large Muſcles of the Hips and Thighs, which are blown up, like little bladders. and are filled with air, and come by ſtraining; for Draught-horſes are moſt ſubject to them of

all

all others. But thoſe Windgals aud Flatulencies that proceed from natural weakneſs of the Limbs, are not curable, unleſs the conſtitution can be altered; and therefore we ſee ſome Horſes ſubject to thoſe infirmities when they are young, get the better of them as they grow to maturity.

Windgals that do not proceed from weakneſs, but are owing to hard riding, or the other cauſes above-mentioned, are more eaſily prevented than cured; for tho' few Horſes go lame with Windgals, yet they always disfigure the part wherever they are ſituated; and therefore young Horſes of value ought not to travel much, eſpecially with a heavy weight, before they come to their ſtrength. If they ſwell about the Paſterns, and the ſwelling does not aſcend towards the Knee, but with a fulneſs on each ſide the Back-Sinew, it is to be ſuſpected Windgals are breeding; to prevent which, bathe the part well twice a day with Vinegar or Verjuice. Oak Bark, or Pomegranate Bark boiled in Venegar or Verjuice, is a great ſtrengthener of the Limbs, where there appears to be a more than ordinary relaxion. This may be uſed at diſcretion, by wringing out woollen cloaths ſoaked in this decoction, and binding them about the part, while the Horſe ſtands in the ſtable, and renewed once a day, which will greatly contribute to ſtrengthen his Limbs; ſome uſe wine lees in the ſame manner, which may alſo be of good ſervice.

The method to prevent Windgals.

But when Windgals are grown pretty full and large, and the matter of them ſo impacted in the membranous cells, that they feel like Kernels or relaxed Sinews; if theſe be in the Hind-legs, it is ſcarce worth while to meddle with them; and we ſee daily many good Hacks and Road-horſes, that travel long Journeys, and never go lame; but when they are ſituated on the Fore-legs, becauſe they are apt to make a Horſe trip and ſtumble, or at leaſt to be very ſtiff after riding, the cure may be attempted by mild bliſters; ſome only pierce them with an aul, but that often renders them more obſtinate, but mild bliſters often repeated, draw out the ſeroſities, diſſipate the impacted air, and by degrees remove them. Bliſtering always has this effect in the Windgals that happen above the Fetlock, and ſometimes I have known bliſtering alone ſucceed in the windy flatulent Tumors in the Hocks; but this has been repeated at times for the ſpace of a year or a year and an half, working the Horſe as uſual in all the intervals. Theſe accidents happen chiefly to Coach-horſes, and others that draw heavy loads, and the beſt way to manage their bliſters is this: A little of the bliſtering ointment ſhould be laid on every other day for one week, which brings a plentiful diſcharge of ſeroſities, and when they are dried up, which generally happens in a few days, the Horſe may go to his uſual work for three weeks or a month, after which the bliſtering may be again renewed, if it be a convenient time for the owner, or at any other ſeaſon when the Horſe can have a little reſpite given him from working.

The cure of obſtinate Windgals.

working. I have cauſed Horſes to be bliſtered in this manner ſix or eight times within the year, by which method I daily got ſome ground, the puffs and ſwellings have been gradually reduced, the Fibres and nervous parts have been ſtrengthened, no manner of blemiſh has been left, nor any loſs of Hair, and the Lameneſs has been removed. Firing is indeed more expeditious, being but one ſingle operation, which is ſeldom or never repeated; but firing not only leaves its tokens behind it, but for the moſt part makes an imperfect cure, and as the ſeroſities are never ſufficiently drained off, there always remains a fulneſs in the Joint, with a ſtiffneſs; and the only good effects obtain'd by it is this, that it ſtops the increaſe of the malady, and renders a Horſe much more uſeful than he was before the operation. The beſt bliſter that can be uſed in this caſe, is that mild preſcription, which has been already recommended for the cure of a Bone-Spavin.

Firing uſeful in the cure of Windgals.

As for thoſe puffs and flatulent Swellings that ſometimes riſe near the Joint of the Knee, the beſt way is to remove them by repellers; in regard theſe are often cauſed by blows or ſtrains; the propereſt repellers are Oak Bark, or Pomegranate Bark boil'd in Vinegar, or in ſharp Lees of Wine, which may be apply'd with Woollen Cloths, as already directed; but if theſe have not force enough to take effect, then the beſt way is to bliſter without delay; for when theſe are ſeated near the Knee, they prove dangerous, unleſs ſpeedily removed: for this reaſon firing is alſo proper after bliſtering, which ſhould be done

done with a ſmall iron, and the lines or raſes made as near to one another as poſſible; afterwards covering the whole Knee with a defenſive plaiſter; for which purpoſe, the Ad Herniam, or Rupture Plaiſter, mixed with De Minio, either the Red or brown, equal parts, is preferable to any other, letting it lye on as long as it will ſtick.

In the human body, it is uſual to treat flatulent Swellings with diſcutient Fomentations made of warm Aromatick Herbs and Cummin Seeds, as Bay-berries, and ſuch like, but the Skins of Horſes are ſo thick, and their Fibres ſo rigid, that ſuch things make little or no impreſſion upon them; neither does the Cummin Plaiſter avail any thing, it being impoſſible to make this plaiſter ſtick ſo as to be of any uſe; and therefore I judg'd it unneceſſary to lay down any forms of ſuch things.

As to the flatulent windy Tumors that riſe between the Interſtices of any of the large Muſcles of the Hips, or elſewhere; theſe generally come by accidents, and the beſt way is to make an inciſion, and digeſt the wound, or waſh it pretty often with Spirit of Wine and Vinegar, equal parts, for when the Membranes are pierc'd, and the air and viſcid Seroſities are diſcharged, the parts ſoon agglutinate and heal, and thereby recover their wonted tone. But theſe ſort of Flatulencies often wear off, without any help, by the working of the Muſcles in their exerciſe, the action of the Muſcles in a Horſe being very ſtrong and forcible; and as they are not dan-

dangerous, the beſt way is to to try repellents, before any thing elſe be done.

Of a Blood-Spavin.

A Blood-Spavin is a Swelling and dilatation of the Vein, that takes its courſe along the inſide of the Hock, forming a little ſoft Tumor in the hollow part thereof. The ſwelling is uſually no bigger than a large walnut, but more flat. It is ſoft and yielding to the touch, as the other Veins, and often attended with weakneſs and lameneſs in the Hock. The Blood-Spavin deſcribed.

This malady is called a Varix in the human body, and is often the effect of wounds, bruiſes, and other accidents. Aged and weak perſons are ſubject to Varixes from the poorneſs of their Blood, and the badneſs of their Juices, and in young perſons they are owing for the moſt part to a Plethora, and fulneſs of Blood. But a Blood-Spavin in a Horſe, for the moſt part is owing to theſe concurring cauſes, *viz.* an uncommon largeneſs of the Veins, which diſpoſes to weakneſs in the Limbs. The Vein where the Varix is ſeated not paſſing in a ſtreight courſe, but with a contortion or winding, eſpecially when two of the larger, inferior branches meet together near the hollow, and there enter the great Maſter Vein of the Hind-Leg; this generally forms the largeſt Varix, or Blood-Spavin, and of ſuch ſort as moſt of all diſpoſes to lameneſs. The ſhape of the Hock contributes alſo to this malady when it is broad and large, as it is more remarkably in ſome Horſes than others, and the Proceſſes of the Bones of that Joint

It is properly a Varix.

The cauſe.

Joint are high and prominent, ſo as to render the ſinuoſities and hollowneſs both deep and ſpacious, whereby a lodgment is more eaſily form'd for the turgid Vein, which generally retards the motion of the Blood contained in it, and contributes to increaſe the ſwelling, ſo that it is continually impreſſed and bruis'd by every action of the Joint; and from hence it falls out, that in a Blood-Spavin, a Horſe always grows the more lame the longer he is kept in exerciſe.

The cure of a Blood-Spavin.

The uſual cure of a Blood-Spavin is by taking up the Vein; but that is not neceſſary in all caſes. When a Blood-Spavin proceeds from a Strain in the Hock, it ought only to be treated with coolers and repellers, which often cures without further helps. Young Horſes often have a fulneſs in that Vein when they come firſt into work, eſpecially if their Blood be viſcid and ſizy; but that defect ordinarily wears off with a careful management of a Horſe's diet and exerciſe, and with other good uſage; the propereſt applications to ſtrengthen the Hocks, or any other of the Joints, are cooling and reſtrictive fomentations; for which purpoſe I can recommend the following above all others, and it is eaſily made.

Take Biſtort Root, and Solomon's Seal, of each a handful; Oak Bark, and Pomegranate Bark, cut or bruis'd, of each an ounce; Roch Allum, an ounce and a half; boil in two quarts of Vinegar, or old Verjuice, and bath the Horſe's Hock with it pretty often; the

the beſt way is to wring out woollen Cloths, and apply them hot round the Hock.

This is not only proper to prevent a Blood-Spavin, but in all weakneſſes of the Joints will do great ſervice, eſpecially to ſtrengthen the Limbs of Colts and young Horſes, that have been put early to buſineſs.

But if either the ſtructure, or ſituation of the Veins in the Hock, are ſuch as admits of no diminution, the beſt way is to take up the Vein, by opening the Skin the whole length, then paſſing a crooked needle underneath the Vein, a little way below the ſwelling. The needle ſhould be arm'd with a wax'd thread doubled, with which the Vein is to be tyed. The ſame operation may be alſo performed a little way above the ſwelling, and the turgid part of the Vein will come away by digeſtion, when the ligature rots off. I have known ſome Farriers cut off the middle piece of the Vein, between the Ligatures, and ſucceed very well in the cure, only that the cutting out the Vein created heat, inflammation, and ſwelling of the Hock, which might have been dangerous, had the Blood been faulty; and *Solleyſell* ſays, he has known this way of taking up the Vein (which it ſeems is very common in *France*) produce the Farcy, and prov'd fatal to ſeveral Horſes. After taking up the Vein, the part ſhould be dreſſed with a good digeſtive made of Turpentine, Honey, and Spirit of Wine, which is milder than Oil of Turpentine, and renders it more proper in this caſe while the wound is digeſting; the cur-

rent

rent of the Blood being cut off by this operation, will gradually enlarge the neighbouring branches, and by that means keep up its communication, ſo as to ſupply the Limb with its proper ſupport and nouriſhment, and by that time the threads are rotted off, and the wound cloſed, will arrive to a tolerable degree of ſtrength; but yet I would always adviſe, when a Horſe has had a Vein taken up for a Blood-Spavin, that he ſhould be uſed gently for a conſiderable time, for many Horſes with theſe defects never recover their ſtrength ſo perfectly as others that have never been ſubject to them.

The worſt ſort is, when along with the Spavin, there are alſo flatulencies and puffs in the Hocks, which I have ſeen ſeveral times; in common caſes I have often recovered the Hock without taking up the Vein, by ſuch reſtringent fomentations as the laſt inſerted, which often ſucceeds with young Horſes, and with right and well timed exerciſe, and a clean drying diet, recover them to their ſtrength; but in the other caſe nothing is to be done without firſt taking up the Vein, and afterwards following the method already laid down for the cure of Windgals and other flatulent Tumors, particularly Bliſtering and Firing, applying a Styptick Plaiſter or charge made of the Rupture Plaiſter, two parts, and one part of *Diachylon* or *de Minio*, to render it leſs brittle, which is neceſſary here, becauſe the motion of the Joint would be apt to make it crumble off. This is a great ſtrengthener or defenſive, and ſhould be ſpread very thick all round the Hock, and continued for two or three months,

months, during which time the Horſe may be turned out to graſs.

The Rupture Plaiſter, in moſt of our Diſpenſatories, is directed in the following manner, *viz.*

Take of Galls, Cypreſs Nuts, Pomegranate Peel, Balauſtines, Acacia, the Seeds of Plantain, Fleawort and Creſſes, Acorn Cups, roaſted Beans, long and round Birthwort, and Myrtles, of each half an ounce; let all theſe be powdered and macerated, or ſteeped four days in Vinegar of Roſes, and afterwards dried. Then take of the greater and leſſer Comfrey, of Horſe-tail, Woad, Cetrarch, Roots of Oſmund Royal and Fern, of each an ounce; of Frankincenſe, Myrrh, and Maſtich, of each two ounces; of Armenian Bole, waſhed in Vinegar, of prepared Calamine, Litharge of Gold and Dragon's Blood, of each three ounces; of Pitch, two Pounds; of Turpentine, a ſufficient quantity to make the whole into an emplaiſter.

I have inſerted this plaiſter, not that I ſuppoſe many will be at the trouble of making it, ſeeing it may be had ſo eaſily at almoſt every apothecary's; but that the practitioner may ſee what things are proper in the intentions of ſtrengthening parts that are weak and relaxed, for which almoſt all the ingredients in this compoſition are perfectly well ſuited; tho' the ſame end may perhaps be as well anſwered where the ingredients are not ſo numerous; and therefore when this plaiſter cannot eaſily be got, another may be

be ſubſtituted in its room, in the following manner.

Strengthening charge proper in a Blood Spavin.

Take *Diachylon* plaiſter or *de Minio*, the red or the brown, two pounds; Pitch, half a pound; melt them together in a pipkin, and when the whole is melted ſtir into the mixture an ounce of fine Armenian Bole, which taſtes acid, and an ounce of dyer's Gall.

This may be applied chargewiſe, as the other, and will anſwer all the ſame purpoſes; the *de Minio* is only made of Red Lead and Oil, as the Diachylon Simplex is of Letharge; the brown has an addition of Bees Wax and Vinegar, which changes the colour of the Red Lead and turns it brown. The dyer's Gall is a fungus that grows out of a foreign oak, has the ſtrengthening and reſtringent properties of the oak, and is much eaſier reduced to powder. And the Bole is not only drying and reſtringent, but gives a good body and conſiſtence to the plaiſter, ſo as to prevent it from running.

Horſes are ſubject to other Varices beſides the Blood-Spavin, but are ſeldom minded, unleſs they cauſe a Horſe to go lame. I have ſeen Varices ſeveral times on the Fore-Legs, behind the Joint of the Knee, on each ſide the Back-Sinew, between it and the Bone, where the crural Veins are ſeated, and ſometimes below near the Fetlock, and I have ſeen a varicoſe diſpoſition in the whole Vein on one ſide, and not in the other on the oppoſite ſide. And I have known the Shakle Vein, tho' it is naturally no bigger than a ſmall packthread, turned to a Varix, as large

large as a man's little finger. When theſe happen, Horſes always go lame; and it is one of thoſe ſort of lameneſſes which few practitioners are able to find out. But I ſhall diſcourſe more fully on this when I come to treat of Strains of the Back-ſinew.

Of WENS.

Wens described.

WENS are fleſhy ſubſtances that grow out almoſt on all parts of the Horſe's Body. They often proceed from bruiſes or ſtrains, and ſometimes from accidents that are minute and imperceptible, beginning uſually in the Skin, where the veſſels are extremely ſmall, which enlarging gradually by a continual afflux to the diſeaſed part, in time grow to a conſiderable ſize.

They are ſeldom painful, which is owing to their ſmall beginning and ſlow growth, being ſometimes of ſeveral years ſtanding before they arrive to any great ſize; ſo that they become like the natural fleſh, and rarely have any other ſenſible effect than to cauſe a deformity or weight upon the part where they are ſituated. Their ſubſtance is generally fleſhy, and for the moſt part ſpungy; tho' ſome are ſpungy in part, with a mixture of ſchirrous hardneſs, of a ſcrophulous or cancerous diſpoſition, eſpecially when they ariſe among the glandulous parts.

When a Wen takes its origin from the Tendons or Membranes of the Muſcles, or when any part of a Wen has a participation with them, that part generally appears upon diſſec-

tion, like ſo many ſmall threads, or like a bundle of hair laid cloſe together, which, according to ſome, is a true Schirrus. When a Wen riſes, or has a communication with the *Membrana Adipoſa* or the Vaſcular Cells that contain the fat or unctuous part of the Blood, its ſubſtance is then chiefly an accumulation of a greaſy matter reſembling ſuet; and in ſome a conſiderable quantity of clear water has been found, eſpecially upon ſqueezing, which probably may proceed from ſome communication with the lymphatick veſſels.

All true Wens are contained in a cyſtis or bag, which riſes from the ruptured Veſſels, formed by the ſlow advances it makes, and incloſes the whole ſubſtance, encreaſing both in its thickneſs and ſize as the Wen encreaſes. And this is the reaſon why Wens and all other incyſted Tumors can never be perfectly cured, unleſs the *Cyſt* or *Capſula* be alſo deſtroyed.

Horſes ſubject to Wens.

Horſes are ſubject to Wens and fleſhy Tumors, as all other animals are, tho' they are ſeldom ſuffered to grow to any ſize before they are extirpated. There is ſo much delicacy uſed in treating the human body, that theſe ſubſtances not being painful, are often ſuffered to go on till they cauſe great deformity, or become troubleſome with their weight, or are attended with ſome other very great inconveniency. But as we are ſollicitous to have every the leaſt deformity removed from our Horſes as ſoon as any ſuch appears, therefore when a preternatural ſwelling riſes on any part, trial is firſt made to diſſolve it; and if that cannot be done, it is cut off

off without ceremony, or elſe deſtroyed with a cauſtick. Nevertheleſs we often ſee draught Horſes that are of ſmall value with very large Wens, even ſometimes upon their Joints, without making them go lame, eſpecially thoſe that hang looſe and have their ſituation no deeper than the Skin; and we may often ſee oxen and cows with very large Wens upon their Knees, which might eaſily be removed, without danger, if they were any ways hurtful.

A very large Wen near the Wind-pipe.

I was once concerned with a very fine Horſe that had a large Wen on the lower part of his Neck, near the Wind-pipe, which was cut off with a ſharp inſtrument. It grew from a ſmall beginning, not bigger than a Walnut, to the bulk of a middle-ſized melon, without pain or inflammation, but at laſt it became troubleſome, and affected the motion of his Shoulders. This ſubſtance, when it was cut off, appeared to be no other than a maſs of fungous fleſh, a little variegated in its colour, and probably proceeded from a rupture of ſome very ſmall twigs of the Jugular Arteries, which being enlarged by a continual afflux of the Blood, cauſed ſo great an effuſion of Blood from ſeveral orifices, that it could not be ſtopped by the actual cautery; however, the firing reſtrained it ſo far as to make way for a ſtyptick, by which means the wound came to digeſt, and was ſoon cicatrized.

The cure of Wens.

When Wens are pendulous and hang by a ſmall root, the beſt way to extirpate them is by trying them with a waxed packthread, or a hair line, making the ligature or tye tighter by degrees, till the ſubſtance falls off; afterwards it

may be healed with a common digeſtive made of Honey and Turpentine, or by bathing it frequently with Spirit of Wine or Tincture of Myrrh. But when a Wen is broad towards its inſertion, that is at bottom, and has ſeveral origins, like cords or ſtrings, it is ſometimes the ſafeſt way not to meddle with it. If the cure is practicable, it muſt be done by exciſion or cauſtick. The firſt dreſſing muſt be with dry tow, and afterwards with the common digeſtive. If proud fungous fleſh ariſe, it may be dreſſed with Turpentine mixed with red Precipitate, *viz.* two drams of Precipitate ground fine to two ounces of Turpentine; and where it requires moſt, the ſore or ulcer may be ſtrewed with powder of Precipitate, or with Precipitate and burnt Allum, in powder, of each equal quantities, and if ſtronger eſcharoticks be required, equal quantities of powder of blue Vitriol and red Precipitate may be uſed, or the Ulcer may be touched with a feather or pencil dipped in Butter of Antimony, eſpecially if it look cancerous; for which the reader may conſult what has been ſaid concerning cancerous ulcers.

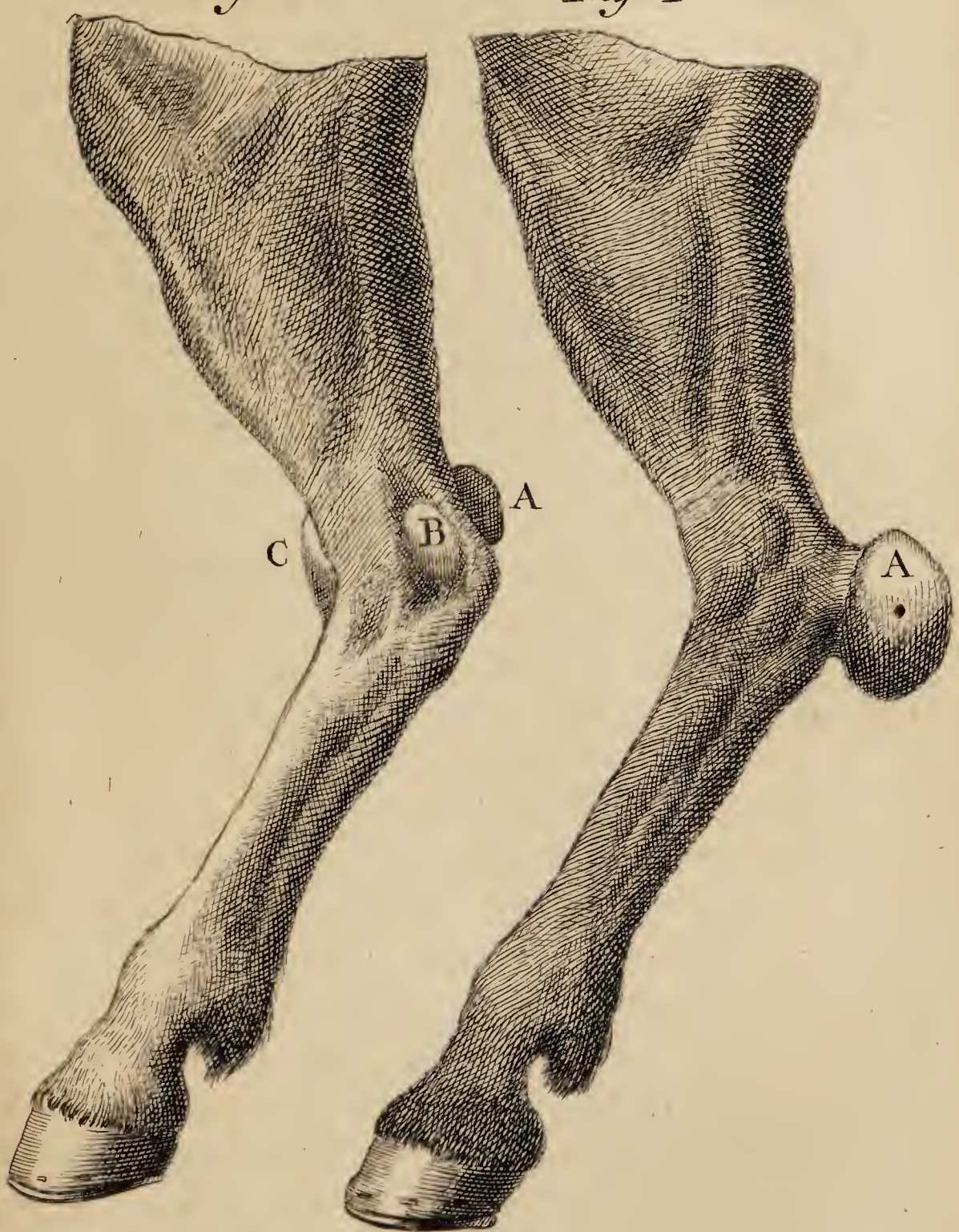
Wens on the Heel of the Hock and Elbow of a Horſe, for the moſt p'r owing to bruiſes, &c.

Horſes are ſometimes ſubject to ſwellings on the Heel of the Hock, and likewiſe on the point of the Elbow, which the *French* and *Italians* call Capellets, and are ranked among the Wens becauſe they have ſome of the ſame qualities and reſemblances, *viz.* they often riſe to a conſiderable bulk, are ſeldom painful, but when they inflame and ſuppurate, and therefore ſeldom cauſe ſickneſs or lameneſs, and are often encyſted as Wens, and have much of the ſame kind of contents. But, however, ſome Horſes may,

TAB. XXVI. *Vol. 2. p. 292.*

Fig. II.

Fig. I.



Vol. 2. p. 293. TAB. XXVII.

may, by their natural conſtitution, be more inclinable to ſuch maladies than others, in which reſpect ſuch ſwellings may be ranked among the Wens; yet daily experience ſhews us that theſe on the Hock or Elbows, are uſually owing to bruiſes and other accidents.

Young Horſes that are tickliſh and given to kicking, when they come firſt to ſtand between bales, are apt to laſh out, eſpecially when the bales hang upon ropes and chains, ſo as to move to and fro; and by that means often ſtrike their Hams againſt them or againſt the poſts, and bring a ſwelling upon the tip of the Hock; which I have often prevented, by cauſing ſuch Horſes to be moved into cloſe ſtandings, and when ſlightly hurt, by bathing the aggrieved part with Vinegar or old Verjuice, mixed with a little Bole; thoſe ſwellings that riſe on the point of the Elbow, are uſually thought to proceed from a Horſe's ſtriking the Toe of his Hind-foot againſt his Elbow in lying down, eſpecially where his ſtanding happens to be narrow and ſhort; and I am apt to imagine ſome Horſes meet with ſuch accidents where the pavement is ſlippery, and want of ſufficient litter; for by that means Horſes may eaſily rub and bruiſe their Elbows, and we rarely ſee ſuch accidents happen to thoſe that have roomly ſtandings and good bedding.

When theſe Tumors come by accidents, we find the ſwelling generally on one Limb, and oftentimes ſome impreſſion is made on the part, which ſhews it has come by a ſtroke or bruiſe; but when it riſes on both ſides, *viz.* on both

Heels, or on both Elbows, and from a ſmall beginning riſes ſlowly and by degrees, we may then ſuſpect the Blood and Juices in fault, which ought always to be regarded by thoſe who undertake the cure of ſuch maladies.

Capellets on the Elbow, or Heel of the Hock, are ſeldom ſo perfectly cured, as not to leave ſome blemiſh or calloſity: If they proceed from Blows and Contuſions, the ſame method is to be followed that has been laid down for the cure of all ſuch accidents; *viz.* by coolers and repellers. Theſe applications often abate ſuch ſwellings, both on the Hocks and Elbows, without further trouble, and in time remove them; but when the veſſels are broke, and the juices extravaſated, they generally come to ſuppuration, which may be forwarded by anointing with *Dialthæa*, or almoſt with any unctuous application; and, if the thickneſs of the Skin hinder or retard their breaking, they may be opened with a launcet or inciſion knife, in ſome dependent part towards one ſide, and not behind, which is better here than opening by cauſtick, becauſe as little as poſſible of the Skin ſhould be deſtroyed, where the parts are prominent, otherwiſe it would be difficult to cover the proceſſes of the bones that form the Heel and Elbow; and, beſides the blemiſh that this muſt leave, the cure would alſo be tedious. The ſame caution ought alſo to be obſerved in all Tumors that riſe on the proceſſes of any of the other bones, eſpecially on the Joints, where their continual motion hinders their re-union,

when

when they become wounded, or meet with any other accident that cauſes loſs of ſubſtance.

When the matter of theſe Tumors is all diſcharged, and the Abſceſſes formed therein are dried up, which may be done with ſoft doſſils dipp'd in a mixture of common Turpentine, Honey, and tincture of Myrrh; and, in caſe of proud fleſh, with the aſſiſtance of precipitate Vitriol, burnt Allum, and ſuch like, there remains nothing further than to bath the part once a-day, or oftner, with ſpirit of wine and vinegar, equal parts, and about an eighth part of oil of Vitriol added to it by ſingle drops, as has been elſewhere directed. TheSkin, after ſuch accidents,continues generally relaxed andthick, and at the ſame time exceeding ſpungy ; I have ſeen it at leaſt an inch and an half on the Elbow, and of a pale colour, reſembling an unripe cherry, when it is cut, iſſuing forth a moiſture like that which comes from wounded Tendons, and by uſing this mixture conſtantly after the groſſer matter has all been diſcharg'd, bathing the ſore, and all over the ſwelling, the Skin has ſhrunk gradually, and the cure has been made without leaving a calloſity, in leſs time than one could well imagine ; for when a calloſity or thickneſs of the Skin remains, which cannot indeed always be avoided, it expoſes them to freſh impoſtumations and abſceſſes.

The Capellets or ſwellings on the Heel of the Hock often differ from thoſe on the Elbow, eſpecially with regard to their contents ; for as the Tumors on the Elbow uſually digeſt well with good laudable matter, ſo it is otherwiſe in the

Hocks; the matter of theſe ſometimes reſembles thick paſte, others contain nothing but a thin viſcid water. In piercing them with a trochar, I have ſeen ſome diſcharge upwards of a quart of this thin matter; and as the Skin there forms a Capſula, that cannot be removed without an irrecoverable disfigurement, ſo this matter is apt to gather and fill, again in the manner of an Atheroma. But the coach breed are moſt liable to ſuch maladies, and as they ſeldom cauſe lameneſs, they are therefore the leſs regarded.

When any of theſe Tumors proceed from an indiſpoſition of the Blood, in ſuch caſes I always found it the ſafeſt way not to be too buſy with them, eſpecially thoſe that ſeem watry, and are no ways hot and inflam'd. I have known them often wear off inſenſibly, without any applications made to them, only by keeping the Horſe to a clean diet, and giving him moderate exerciſe; but when they are like to prove tedious and fluctuating, ſometimes riſing and ſometimes falling, without coming to any certain or determinate iſſue, and if they have a tendency to drop downwards into the Limbs, the beſt way is then to rowel and purge, and when the purging is quite over to give diuretick or piſſing drinks, made with clean forge water, which before the juices are extravaſated, will effectuate a cure. Afterwards bathing often with ſharp Vinegar or Verjuice will ſtrengthen the part, and be a great means to prevent a relapſe. But the ſureſt and ſpeedieſt cure is to extirpate them quite with a ſharp inſtrument; this, however, can only be done when they do not adhere to

the

the proceſs of the Elbow, but may be pulled out, and have nothing but a ſmall neck of Skin behind them. As for thoſe that riſe in the Heel of the Hock, they cannot be ſo ſafely extirpated, but will be apt to leave an ugly blemiſh.

CHAP. XI.

Of WOUNDS.

A WOUND is generally defin'd a ſeparation of the parts in any member of the animal body by ſome inſtrument: but moſt people know better from experience what a wound is, than by any definition that can be made of it.

Wounds are of different kinds, ſome are ſimple, where the muſcular fleſh or tendons are any ways cut or divided by a ſword, knife, or other ſharp inſtrument; others are compound or complicated, when not only the fleſh, nerves and tendons are divided, but when the bones are alſo cut or fractured, or when ſplinters and extraneous matter is lodged within the wounded fleſh; this often cauſes aggravations in wounds of the complicated kind, as are alſo all wounds with contuſions, where the fleſh and nervous parts are not only cut or broke aſunder by the violence of the ſtroke, but when the circumambient fleſh is alſo bruiſed, whether by the bluntneſs of the inſtrument, or by the prominency of the bones, and other hard parts that lie under the wound. There are alſo lacerated Wounds, of which kind are all thoſe cauſed by nails,

The various kinds of Wounds.

nails, tenter-hooks, or ſplinters of wood that tear the fleſh, and alſo when they happen to be ſtak'd at graſs; all which produce wounds of the lacerated kind. Punctures are deep ſmall wounds made by nails, or ſharp ſplinters piercing through the fleſh; and ſometimes the joints, and other nervous parts are wounded with new forks careleſsly uſed, before their points are worn blunt and ſmooth; all which wounds are generally punctures: beſides theſe, our war-horſes are expoſed to gun-ſhot wounds, and other accidents, which will be treated of in their order.

Now, all wounds are perceptible to the eye, but to know how far they penetrate, or how far the internal parts are affected by them, requires ſome knowledge and experience. Simple wounds in the fleſh may be often traced in all their dimenſions, without the help of a probe or inſtrument; but when they are deep, and form Abſceſſes, it is then neceſſary to make ſome trial of them. In wounds of the Head, if the Horſe be convuls'd, and inclin'd to the Staggers, and continues under theſe ſymptoms, we may ſuſpect the Brain to be wounded, with its membranes; and if the Cerebellum be wounded, his convulſions will be ſtrong, and ſcarce admit of any intervals. The ſame ſymptoms will ariſe from a fractur'd Skull, eſpecially if any part of it be depreſſed; but theſe are accidents that ſeldom happen to Horſes, the bones of the Skull being extremely hard and ſolid. When the Wind-pipe is wounded, the air will come forth of the wound. And if the wound be in the

Dangerous ſymptoms in Wounds.

Lungs,

Lungs, not only the air, but a frothy matter of a vermilion colour, will be diſcharged from it. When the Stomach is wounded, the aliment or food, eſpecially the thinner part of it, paſſes thro' the wound; and when the ſmall guts are wounded, the matter will be mixed with the chyle. When the Bladder is wounded, the Urine will come forth of the wound, and if the wounds be in the Kidneys, the matter will be thin, and have an urinous ſcent, and the Urine bloody.

All wounds that penetrate the noble parts are generally attended with pain, ſickneſs, and often with convulſions. When the heart is wounded, fainting and ſtrong palpitation will be the immediate conſequence. Wounds of the Liver are attended with great pain and inward bleeding, from the *Vena porta*, and other large blood-veſſels. Other wounds are in like manner diſtinguiſhed by their proper ſymptoms; for inſtance, when a Horſe is any way wounded in the Membranes and Sinews, there is always an exquiſite ſenſe of pain, the matter is generally thin and viſcid. When a wound is received in the Joint, that penetrates the ligaments, it is often attended with a Joint-water, and many other ill conſequences.

The prognoſticks, to ſhew when wounds are dangerous, and when not.

As to the prognoſticks, they are in many reſpects the ſame as in the human body, for fleſh wounds are eaſily cured, if the Blood be good and balſamick; but if that be tainted or vitiated, the moſt ſimple wound may become troubleſome and difficult, and ſometimes dangerous in the beſt conſtitution, eſpecially when any of the

the larger arteries are divided. Wounds in the membranes and nervous parts are more difficult, and attended with worſe ſymptoms than fleſh wounds; and when the Sinews are wounded, eſpecially if they be punctur'd, prick'd, or any ways torn, they always excite great pain, and ſometimes with a ſymptomatick fever; otherwiſe, when theſe wounds digeſt kindly, are as eaſily cured as any other.

Wounds in the Joints are always troubleſome, and if their be a Joint-water, in any quantity, they indanger ſtiffneſs and incurable lameneſs, if not a Waſte and Conſumption. All wounds of the Brain and its membranes are exceeding dangerous, and in the Cerebellum always mortal. Wounds in the Windpipe, in the Heart; the Lungs, and in the Liver, are always dangerous, even tho' the larger veſſels are not penetrated. In the Heart, becauſe of its Diaſtole and Syſtole, *viz.* its contraction and dilatation. In the Lungs, becauſe of their continual motion in reſpiration. And for the ſame reaſon wounds in the Midriff are generally incurable, and often mortal; for beſides its continual motion, its tendinous and nervous parts, when wounded, excite ſtrong convulſions; and I have known a rent in the Midriff prove fatal to a Horſe in a few hours. Wounds in the Liver are always dangerous, eſpecially if its larger Blood-veſſels are wounded, and that there appears the ſymptoms of the Yellows, and a diſpoſition to the Staggers; and indeed all internal wounds that penetrate or divide the larger veſſels, cauſing inward bleeding, or inward abſceſſes, for the moſt

moſt part prove incurable, as are alſo thoſe that penetrate the Stomach and Guts, or any other of the principal Viſcera; for tho' we have accounts of very ſtrange recoveries of the moſt dangerous wounds recorded by the writers in ſurgery, and I have myſelf known ſome extraordinary inſtances of that kind, both in Men and Horſes; yet theſe cures are ſeldom made on the latter, Horſes being unweildy, and in moſt caſes ungovernable, eſpecially when they are in pain, which makes many things impracticable on them, that on other ſubjects would be eaſy, and admit of no difficulty.

The cure.

In the cure of wounds, the firſt intention is always to ſtop the bleeding with dry dreſſings of tow or lint, if there be an hemorrhage, or flow of Blood, in places where the veſſels are large, for in ſmall ſuperficial wounds nature alone often makes a cure without any help. If the wound be large, or in any place where it would be likely to leave an ugly ſcar, ſuch a wound ought to be ſtitched, provided the part will allow it. The beſt manner of ſtitching a large or deep fleſh wound, is with a crooked needle, paſſing it underneath ſo as to encompaſs the whole wound, and entering the fleſh at a diſtance from the Lips, almoſt equal to the depth, otherwiſe the ſtitches will go nigh to cut through the fleſh; and while the Lips are drawn cloſe together, a hollowneſs will be left at bottom, where the matter will be lodged to do miſchief; and for this purpoſe, proper needles may be had at the ſurgeons inſtrument-makers, and no where elſe. Wax'd thread is better than ſilk, becauſe

Manner of ſtitching Wounds.

becauſe it more eaſily rots, and does not ſo readily cut the fleſh as ſilk. The needle ſhould be paſſed under the bottom of the wound, as has been ſaid, beginning chiefly in the middle. One ſtitch is ſufficient for a wound two or three inches long, and in larger wounds that require more ſtitches, they may be made about an inch diſtant from each other, or at a greater diſtance, if the wound be deep.

Our farriers always uſe what our ſurgeons calls the glovers ſtitch, which the latter only do in ſuperficial wounds; *viz.* paſſing a ſtreight needle through the lips with a very ſlender hold, and croſſing the thread over; but theſe ſtitches of the farriers generally burſt through in a few hours, and when they are renewed often tear the lips of the wound into many notches, and make the ſcar much greater and worſe than it would be without ſtitching. This kind only anſwers where the ſkin is looſe, as upon the Breaſt, the Belly, the Face, and ſometimes the Flanks, but in few places beſides, and in theſe not always needful; for where there is ſo much looſe ſkin, the ſcar is generally ſmall; and indeed there is ſeldom occaſion for ſtitches in Horſe's wounds, which often prove hurtful, as I have frequently obſerved, when Horſes have been ſtak'd or gor'd by oxen feeding along with them; and in many other caſes, where they have cauſed troubleſome ſymptoms, of worſe conſequence than the hurt they are deſigned to prevent. Wounds on the prominent parts, as the Hips, or acroſs ſome of the large Muſcles, are the moſt apt to burſt their ſtitches,

eſpecially in lying down and riſing up in their ſtalls; and therefore in all ſuch caſes the lips ſhould never be drawn cloſe together, but left a little open for a free diſcharge, and by ſo doing few bad accidents will happen, and the ſcar will be leſs disfigured than when the ſtitches break, and leave the wound all notch'd, and full of croſs lines; and therefore I always chuſe to avoid ſtitching Horſes wounds, unleſs their lips are very open and gaping, which makes it ſometimes unavoidable, or when they are lacerated and torn; and then they ought to be done with great care, ſo as to make the lacerated parts to be indented as near as poſſible into their proper ſituation. This caution concerning ſtitching is ſtill more neceſſary in wounds that enter the cavities of the body, or even in ſome of the fleſhy parts, ſo as to endanger deep abſceſſes between the Muſcles, or where they reach the Joints, and other nervous parts; for theſe ſhould always be kept open with a tent, or doſſil, or pledgit, arm'd with ſome good digeſtive, than which nothing can be better than a mixture of Honey, Turpentine, and tincture of Myrrh, or a pledgit dip'd in tincture of Myrrh and Aloes alone. The tents or doſſils made uſe of to wounds ought to be ſoft and looſe, and as ſhort as poſſible; for long tents often breed abſceſſes, and ſinuous Ulcers foul the Bones and Sinews in wounds of the Joints, or any place near them: and even when tents or doſſils are made hard, and cramm'd into fleſh wounds, which I have frequently ſeen done for want of judgment, they become as a pea to an iſſue, keep it always open, ſo as not

The abuſe of tents and hard doſſils.

not only to retard the cure, by hindering its filling up; but often is the cauſe of a bad cure, by breeding calloſities, and other untowardly accidents.

Therefore this caution ought to be carefully obſerved in the cure of all wounds; *viz.* never to uſe long tents, or any kind of dreſſings that are roll'd up hard, eſpecially in deep wounds in the fleſh, or wounds near the Joints; for theſe ſeldom need any thing more than flat pledgits. If a wound be deep, and does not reach inwards towards the Bones, a counter opening into its bottom may be proper to prevent an Abſceſs, at the ſame time avoiding the larger Blood-veſſels, that might cauſe an hemorrhage of Blood. But when a wound penetrates obliquely downwards, and is ſo diſpoſed, as to make an aperture or inciſion below impracticable, or even hazardous, in that caſe bandage is the beſt method to form a re-union; but there are few places on Horſes, where bandage can be ſo apply'd as to anſwer that end to any good purpoſe, except ſometimes to the Limbs and Feet; and therefore we muſt in a great meaſure truſt to the aſſiſtance that nature will afford us, with the uſe of ſome proper injection, of which kind tincture of Myrrh and Aloes is the moſt uſual; but if the Abſceſs has been thus formed for any time, and thereby the teguments of the Muſcles, and fleſhy Fibres have been abraded, ſo as to cauſe continual dripings within the fleſh, the injections muſt be ſomething ſharp and cauſtick, otherwiſe they will have but little effect. I cured an Abſceſs in a

Horſe's thigh that was of ſome continuance, and brought him into a kind of atrophy, or lingring decay, by its continual diſcharge, with loſs of appetite; the matter had made its way between ſeveral large Muſcles, and in ſuch a manner, that an aperture could not be made with any certainty. The mixture for the injection was the ſame I have often uſed with ſucceſs to ulcerated greaſy Heels; *viz.* as follows:

Take half an ounce of Roman Vitriol, diſſolve it in a pint of water, and then decant and pour it off gently into a large quart bottle; add to this half a pint of camphorated Spirits of Wine, and the ſame quantity of the ſharpeſt Vinegar, with two ounces of Ægyptiacum, ſhaking the bottle.

This was injected at firſt twice a day with a proper ſyringe, that held about four ounces, with a pipe three inches long. In a few days the diſcharge leſſened, and the matter grew of a better conſiſtence; after which the injection was uſed only once a day (the matter being always firſt ſqueezed out from below upwards with both hands) at laſt once in two or three days, and in three weeks the Horſe recovered his appetite, the abſceſs was in a great meaſure dried up, and ſoon after he came to his former ſtrength and vigor.

But when Horſes happen to be wounded on the Joints, eſpecially when they break their Knees by falling down, or when they cut or over-reach; in all ſuch caſes a pledgit laid over

Contus'd wounds on the Joints.

the wound, ſpread with common digeſtive, and bound on with a roller of broad tape or liſt, and bathing with ſpirit of wine, will ſeldom fail of a ſpeedy cure, unleſs a Horſe be alſo greas'd, and then it muſt be treated as ſuch. If any little abſceſſes be form'd under the Skin, theſe may be ſnipp'd with a pair of probe ſciſſars, that no lodgment may be left, where the matter may lie to corrode the ligaments; but in the Knee, and all the other Joints, care muſt be had to prevent inflammation or fluxion, or to abate thoſe ſymptoms, if they are already begun, by the uſe of proper fomentations, which, however, is more frequent in punctur'd wounds, that have come by thorns or ſmall ſplinters, or other very ſmall inſtruments, than in wounds that are larger. I have known Horſes in very great agony with punctures on their Knees, Hocks, or Paſterns, and ſometimes with contus'd wounds that have been altogether dry, without the leaſt ſign of digeſtion; but theſe, tho' in themſelves dangerous, were generally relieved by the following fomentation, which I have uſed in all ſuch caſes with the greateſt ſucceſs.

Punctur'd wounds on the Joints.

Take Wormwood and Southernwood, of each two handfuls; Chamomile-flowers one handful; Bay-berries and Juniper-berries bruis'd, of each an ounce; crude Sal Armoniack and Pearl-aſhes, or Pot-aſhes, of each two ounces. Boil in three quarts of Spring-water to two quarts; to every quart, when you are to uſe it, add a pint of rectify'd Spirit of Wine.

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I have elſewhere directed in what manner fomentations are to be apply'd; *viz.* making ſo much at a time ſcalding hot as is neceſſary for once fomenting, wringing out woollen cloths in the liquor as dry as poſſible, and applying them five or ſix times alternately one after another, as often as they begin to cool, which may be done morning and evening, or oftner, till the wound comes to digeſt; hot ſtuffs uſed in this manner attenuate and thin the impacted juices, greatly increaſe perſpiration, and by that means forward and quicken their motion, ſo as make way for the ſeparation of the matter, and ripen it for a diſcharge. I have always obſerved, when the leaſt drop of white or clear matter appears upon the uſe of fomentations in wounds of the Joints or Sinews, the danger is generally over; for the running from wounds in thoſe, and other dry parts, is uſually ſmall in quantity, unleſs the fluxion, or flow of humours upon them be very large by long continuance; but yet this ſmall diſcharge in a ſound conſtitution'd Horſe, gives as ſpeedy a relief as a profuſe running from parts that are more groſs and fleſhy. I can therefore recommend this method from frequent experience, as the beſt and moſt ſucceſsful in all contus'd wounds or punctures upon the Joints, or in the Sinews, or the coats of the Blood-veſſels, eſpecially when the Neck or the Plate-vein ſwell after bleeding, and for rowels, when they have a diſpoſition to gangrene; and in all caſes, where a mortification is threatned: In the Neck, I have often ſaved the vein by the frequent uſe of them;

Fomentations of ſingular uſe in wounds.

them; from thence they uſually bring a plentiful diſcharge, and need no other dreſſing, but to ſtrew a little precipitate, and burnt allum, in fine powder, upon the wounded Vein, when proud fleſh ariſes, to deſtroy that, and prevent its choaking up the orifice. The common method, when a ſubſtance grows on the Neck by feſtering after bleeding, and want of a ſufficient vent for the matter, is to put in a cauſtick of Roman Vitriol, and ſometimes a little Corroſive ſublimate or Arſenick, which, with the falling out of the Eſchar, brings a plentiful diſcharge, and often makes a cure only with the loſs of the Vein; but this method frequently fails, and leaves a large ſwelling, which extends upwards towards the Ear, cauſing freſh impoſtumations; ſo that I have been forced afterwards to apply fomentations to remove theſe ſymptoms, which I never knew fail of ſucceſs.

I judg'd it proper to add this to what has been ſaid concerning wounds, becauſe theſe accidents frequently happen when Horſes are bled at graſs and rub their Necks, and are alſo expoſed to feed with their Heads downwards; or when the orifice is very large, and expoſed to the air for want of careful pinning; or, which is the moſt common of all others, when the Vein is ſtruck through; for that never fails to make the Neck ſwell; and when the Plate-vein is ſtruck through, and the tegument of the Muſcle underneath wounded, it ſometimes cauſes great inflammation, with a gangrene.

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I was once ſent for to a very fine Horſe that had been bled in the Plate-vein for a lameneſs in his Shoulder, upon which a hard oval ſwelling happened about the ſize of a gooſe's egg, extending upwards towards his Briſket, and all down his Leg, with exceſſive pain. Nothing iſſued from the orifice but a continual dripping of a gangrened water, attended with a Fever, deadneſs in his looks, and all the other ſymptoms of a beginning mortification. He was fomented three or four times the firſt day, in the manner above directed; a little ſpeck of white matter appeared in the orifice the day following, without ſtench. The Horſe at the ſame time began to feed, and by continuing the fomentations twice a day, and by applying ſoft pledgits of lint dipped in a little hot Ægyptiacum and Oil of Turpentine, he was perfectly cured in little more than the ſpace of one week, both of the threatened mortification and lameneſs.

An inſtance of a Gangrene in the Plate-vein from bleeding.

Of Gun-shot Wounds.

GUn-ſhot wounds are often the moſt complicated of all others, whereby not only the fleſh is wounded, but the bones are alſo frequently broke or ſplintered, attended with contuſion, and many other bad and dangerous ſymptoms, as hemorrhages of Blood, when the larger Blood-veſſels are lacerated and torn, exceſſive pain and inflammation, when bullets or other extraneous matter happen ſo to be lodged on the nervous parts as they cannot be eaſily removed; or when the bones are very much ſplintered,

Gun-ſhot wounds the moſt complicated of all others, and the moſt liable to untowardly accidents.

whereby the fleſh is continually pricked and ſtimulated, which is often followed with a Fever, Convulſions, and ſometimes with Gangrene and Mortification.

The cure of Gun-ſhot wounds.

In the cure of gun-ſhot wounds, the firſt intention is always to extract the bullet or other matter, by which the wound is made. But when the ſhot has penetrated and paſſed quite through any member, and made way for itſelf, in which caſe, unleſs there be a very great effuſion of Blood, there ſeldom needs any thing more than to pour Spirit of Wine into both orifices, and into each a ſhort tent armed with Turpentine, Honey, and Tincture of Myrrh. When the lips of the wound are inflamed, the uſual way has been to anoint them with Oil of Roſes or Oil of Elder, and ſome mix with their digeſtive, in their dreſſings, a ſmall quantity of Sugar of Lead; but I have always obſerved in gun-ſhot-wounds, that nothing is ſo ſafe, and agrees with them ſo well as ſpirituous applications, which bring them the ſooneſt to digeſt, whereby thoſe ſloughs, which the burning occaſions, are the more eaſily and ſpeedily ſeparated and caſt off.

To ſtop the bleeding when a hemorrhage happens.

When there happens to be an Hemorrage of Blood that endangers life, and cannot be ſtopped by the common dreſſings of dry tow or lint, *viz.* when the ruptured veſſels lie out of reach, the beſt way is to inject into the wound (with a ſyringe, having a pipe of a ſufficient length) a ſmall quantity of the Royal Tincture, which is made of the ſympathetick powder, and may be had at a moderate price from the chymiſts;

chymiſts; for it is troubleſome for others to make it who have not the proper utenſils for it. This will not only ſtop the bleeding, but haſten digeſtion, unleſs the veſſel be ſo large as to prove ſuddenly mortal; but if the wounded artery is ſo ſituated that it may be laid bare, and a needle can be paſſed under it with ſafety, it may in that caſe be ſtitched, and tied in the manner above directed. Where a wound penetrates quite through any part, both orifices muſt be kept open till the wound is filled up with a laudible growth of new fleſh, and that no bad ſymptoms remain, as pain, ſwelling, and inflammation, which in thoſe that penetrate the bones as well as the fleſh, would denote foulneſs or ſplinters, which muſt be removed by gradually enlarging the moſt convenient orifice, either by an inſtrument or tents of ſpunge. But in moſt internal wounds this is unneceſſary, becauſe the bullet, or whatever elſe inflicts the wound, can ſeldom be brought forth the ſame way it enters. I have known lead bullets lye many years in men, eſpecially in the lower cavity, without any great pain or danger, and thoſe that have gone deep in the fleſh and beyond reach, make ſometimes their way afterwards from places where they could never be expected to come. Many extraordinary inſtances of this kind are related in books of ſurgery, and in the tranſactions of the learned in ſeveral parts of *Europe*.

Splintered wounds how to be treated.

I have known bullets pierce through both fleſh and bones in men, making a round ſmooth paſſage, like an augur-hole, and been as eaſy of cure as a fleſh wound, except when they have

penetrated or graz'd on the Joints. In which caſes Horſes may be rendered uſeleſs, even tho' the wound be cured. If the bones are ſplintered, the caſe will always be dangerous, eſpecially if the practitioner has not had experience to know both the time and manner how they are to be treated; for looſe ſplinters ſhould not be ſuffered to remain where their continuance would endanger a Gangrene, nor be removed while their removal would create an exceſs of pain; but in ſuch circumſtances emollient poultices are the moſt likely to fit them for ſeparation, ſo as they may at length be brought away with little or no inconvenience, only by the uſe of a common digeſtive. If a bullet, a ſplinter, or other extraneous matter that has been drove a great way downwards from its entrance, can be felt on the outſide, a counter opening in that caſe will be neceſſary, and both facilitates the cure, and renders it more expeditious. But in all ſuch operations, regard muſt be had to the ſituation of the part, to avoid as much as poſſible wounding the Nerves, or any of the larger Blood-veſſels.

Greaſy dreſſings to be avoided

In the dreſſings made for gun-ſhot wounds, it is neceſſary alſo to avoid all unctuous and oily applications, which are apt to breed fungous proud fleſh, but to uſe ſpirituous and balſamick medicines to the wound, *viz.* inſtead of the common greaſy ointments, to dreſs with Turpentine, mixed with Honey or the yolks of Eggs, or with Honey and Turpentine, bathing the wound with rectified Spirits. I always obſerved this method to be the moſt ſafe and efficacious

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in gun-ſhot wounds; and if proud fleſh and funguſes ariſe, to which ſome conſtitutions are more liable than others, it may be ſtrewed with Precipitate finely powdered, or dreſſed with lint dipped in Vitriol water, and ſqueezed or wrung out dry, or the powder of Precipitate may be mixed with the digeſtive, and this in proportion to the luxuriancy and rankneſs of the fungus. When a bullet chances to enter the cavity of the body, and is loſt there, if it happens to ſlide on the principal *Viſcera*, without wounding them, eſpecially thoſe of the Lower Belly, there will ſcarce be any thing further neceſſary than to cure the external wound; for when the internal parts are hurt, it will ſoon appear by many untowardly ſymptoms.

To remove the ſymptomatick Fever.

If a ſymptomatick Fever ariſes, which often happens in gun-ſhot wounds, bleeding is proper, with laxative glyſters, and the diet ſhould be chiefly ſcalded or moiſtened bran, with water-gruel. Sometimes *Sal Prunellæ*, *Cremor Tartari*, and ſuch like opening and cooling things, may alſo be given. And if the wound turns to an Ulcer, which frequently happens in gun-ſhot wounds, near the Joints and Sinews, it muſt be treated according to the directions laid down for the cure of ſuch maladies. See ULCERS.

Wounds cauſed by the bites of mad dogs, or other venemous beaſts, are frequently mortal; the wounded part ſoon becomes ſwell'd, inflames, and its progreſs much ſuddener than any other Gangrene whatever.

There are numerous ways of curing theſe bites; ſome cut the part out immediately, cauteriſing

terising it afterwards, which in those places, where it will allow of this operation, it might perhaps effect a cure; but in case it happens about the Nerves or Sinews, the following poultice may with success be applied to the wound.

Take the Leaves of Rue, two handfuls; Garlick, two or three heads; filings of Tin, four ounces; *Venice* Treacle, six ounces; beat these well together in a mortar, and heat them over a gentle fire, adding of Linseed Oil as much as will make it of a proper consistence.

The following drink, from Dr. Mead's method, may be administred internally.

Take Star of the earth in powder, one ounce; Black Pepper and *Venice* Treacle, of each two drams; this may be given in a quart of Ale for three mornings together; before the giving of these drinks, it may be of service to take a sufficient quantity of Blood from the Horse. Plunging into sea or cold spring water every morning for three weeks together, is reckoned of great service in this malady.

Of BURNS.

Burns how to be treated.

BURNS occasioned by gun-powder, or happening by any other means, are apt to ingender funguses, with extreme pain, proceeding from the uncommon heat and inflammation raised by the violent effects of the fire. I have often seen this symptom greatly abated by the immediate application of common salt to the part, bound on pretty thick, and continued about twelve hours, which has had so good an effects

effect as to prevent blisters rising; and the sores in very deep burns, have, after the removal of the salt, been presently mitigated and soon healed, only by bathing two or three days with rectified Spirits of Wine. I have seen the same done often, by bathing immediately with strong rectified Spirits, for the space of an hour or longer, and afterwards once or twice a day. Saline and spirituous applications excel all other things in burns and scalds, because when they are applied in time, they prevent the serous juices of the external parts coagulating, which, from the disposition we observe in burns and scalds, seems to be the source of all the pain and other ill consequences that sometimes attend them. The serosities of the skin being like a liquid glue, are suddenly condensed and thickened by the immediate heat of fire, and therefore all things that attenuate serve to preserve them in a fluid state; so that the application of salt and soap, which is in almost every one's acquaintance for burns, must also be proper, as the soap is both penetrating, and greatly attenuates the juices, especially when mixed with salt. Yet when any part is violently burnt or scalded, I have known this method often fail; and therefore, to render this the more efficacious in cases that require such immediate relief as scalds and burns, is to make an embrocation of Soap, Salt, and rectified Spirits of Wine, which will be found to answer the end much better than by laying it on by way of cataplasm. From hence it is evident, that coolers and unctuous things must for the most part be hurtful in such cases, and

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daily experience ſhews us that great miſchief is done by them. Linſeed Oil, Oil of Elder, and the *Unguentum Populneum*, which have been long in common uſe, and are accounted great coolers, ſerve only to increaſe bad ſymptoms, unleſs in very ſlight accidents of this kind, and the *Unguentum Album* has the ſame effect. However, if the ſwelling be very great, and much inflamed, that a digeſtion cannot be made ſpeedily enough to abate it, I have often obſerved great relief from bread poultices, made with Milk and Elder-Flowers, by relaxing the parts when too violently ſtretched, as happens in ſome groſs conſtitutions, with the coagulated and inflamed juices; and if after this an ill diſpoſition continues in the ſores, with hot watry funguſes, which is uſual where the fire has penetrated deep, the only method to make a cure is by mixing Precipitate with yellow Baſilicon, *viz.* two drams of Precipitate to an ounce of Baſilicon, ſpread on pledgets of tow ſufficient to cover the whole ſore and its edges, and every time the ſores are dreſſed, to bath with Spirit of Wine, Rum, or any other ſuch ſpirituous application. This method will ſoon abate all bad ſymptoms, and make a ſpeedy cure. The *Unguentum Diapompholygos*, or Mr. *Cheſelden*'s ointment of the *Lapis Calaminaris*, in his Eſſay towards a new *Pharmocopœia Chirurgica*, muſt alſo be of great uſe to cicatrize burns and all humid ulcers, when the funguſes are deſtroyed.

Two extraordinary caſes of Burns.

I was employed to two Horſes that were miſerably burnt by the careleſsneſs of a ſervant who fell aſleep in a ſtable, and had left a candle burning,

burning, which dropped among the litter and ſet it on fire. One of them was burnt along his Throat, Mouth and Noſtrils, his Briſket and Shoulders, his Belly and Sheath, and his Limbs were in ſome places as if they had been broiled. He was ſo extremely ſwelled, and run ſuch quantities of a hot ſcolding water, and his Fever ſo violent, with ſuch pain and reſtleſſneſs, that he beat himſelf to pieces, and died miſerably, before any thing could be done effectually to ſave his life.

The other was not ſo bad; his Limbs, his Briſket, Belly and Sheath were ſcorched, and alſo run a hot ſcalding water in great plenty; his Fever was not ſo violent, neither was he totally off his Stomach, but would pick a little hay, eat maſhes, and drink water-gruel. He was bled, and had ſeveral glyſters to abate the Fever, with Sal Prunellæ in his gruel. The burnt parts were dreſſed with the following mixture, *viz.*

Two ounces of Crude Sal Armoniack, boiled in a quarter of Water a few minutes, and then mixed with a quart of Spirit of Wine, mixed gradually.

With this his ſores were bathed ſeveral times a day, which brought them to digeſt and run through the parched ſkin, a great deal of which came off; but in the end without leaving any great blemiſh. In places where the Sal Armoniack cannot be had, common Salt may be ſubſtituted, only doubling the quantity, and Brandy or Rum may be uſed inſtead of the rectified

rectified Spirits; and ointment of Elder, or Linseed Oil to anoint the burnt parts after the heat and inflammation is gone, to loosen the scabs.

CHAP. XII.

Of ULCERS.

An Ulcer defin'd.

AN Ulcer is generally defin'd a solution of continuity in some fleshy part of the body, with loss of substance proceeding from an internal cause; and in the bony parts, when that is grown spungy like flesh, it is called a *Caries*, which may properly enough be term'd an Ulcer in the Bone.

But although properly an Ulcer is that which proceeds from a vitiated Blood, yet all kind of sores are also reckoned Ulcers, when they degenerate and contract an ill disposition, whether they take their origin from an internal or external malady; so that they are of various kinds,

The cause of Ulcers.

and are owing to different causes, as wounds, bruises, and other accidents, ill treated or neglected; and likewise to a depravity of the Blood and Juices, which first produce Tumors, and these in the end turn to Ulcers. Of this kind are the Poll-evil, Fistula, Navel gall, Quittors, Grapy-heels, Farcy-sores, and others, where the Blood and Juices are deprav'd. Some Ulcers are also internal in the Lungs, the Liver and Kidneys, and other Viscera, where they produce wastes and decays, and some are among the Joints and Ligaments.

There are alſo other diſtinctions made uſe of in deſcribing Ulcers, *viz.* ſimple and compound, ſinuous and cavernous, fiſtulous, putrid, ſcrophulous and cancerous. A ſimple Ulcer is ſuperficial, attended only with foulneſs, hard or uneven edges raiſed above the ſurface of the ſkin. A complicated Ulcer properly is when not only the fleſh is ulcerated, but a Caries and putrefaction appears in the Bone, with other ſymptoms. A cavernous Ulcer is that which has a ſmall narrow entrance, with a wide ſpreading bottom. Thoſe that run a-ſlant, proceeding from abſceſſes between the Muſcles, or their Tendons, are called ſinuous Ulcers; and thoſe that are ſmooth and callous on the inſide, and run in ſeveral meanders, that meet one another like a coney-borough, are called fiſtulous. And where there is a great afflux of fœtid ſtinking matter, with ſwelling inflammation and inward ſickneſs, it denotes putrefaction, from whence ſuch Ulcers are called putrid: cancerous and ſcrophulous Ulcers are uſually ſeated on the Glands and Kernels, and may be diſtinguiſhed by their proper ſigns and diagnoſticks; the ſcrophulous Ulcer being more ſlow in its effects, and leſs offenſive; whereas the Cancer grows ſuddenly, and makes great havock on the part, and on the whole conſtitution. Varicous Ulcers are ſituated among the Veins, and are always ſoft and bloody; of this kind are many of thoſe that happen to Horſes in the Farcy, and ſometimes in Surfeits, when they proceed from a plethora and fulneſs of Blood.

The different kinds of Ulcers.

As for the prognoſticks, ſimple and ſuperficial Ulcers on the ſkin are no ways dangerous, eſpecially

The Prognoſticks.

eſpecially when the Blood is not greatly in fault; but when the edge riſes above the ſurface, and grows callous, they require ſome time before theſe can be brought ſmooth, and fit to be cicatriz'd. An Ulcer or Caries in the Bone is ordinarily more tedious and difficult to cure than an Ulcer in the Fleſh, and the difficulty is more or leſs, in proportion to its ſituation, or according to the ſtate of the Blood, and the cauſes from whence it proceeds: Cavernous Ulcers often become ſo, merely by their ſituation in places where bandage cannot be apply'd, but are not ſo dangerous as ſinuous Ulcers, eſpecially when the ſinuoſities terminate near the Joint, for then they are often attended with great difficulties: Fiſtulous Ulcers are attended with all the ſame difficulties, or rather greater, being often ſituated among the Joints, and other dangerous places, which to Horſes are of bad conſequence; and, for the moſt part, renders them of little uſe, even when a cure is effected. Putrid Ulcers are always dangerous, as proceeding from a deprav'd Blood; and when they turn cadaverous, and diſcharge very great quantities of fœtid ſtinking matter, are apt to end in mortification: Cancerous Ulcers are of no leſs ill conſequence, only that there is more reſpite given, for Horſes will live languiſhing a conſiderable time, with cancerous Ulcers, as in ſome kind of Glanders, and other Ulcers I have ſeen in the glandulous Parts, and ſometimes in the Farcy, till they are quite extenuated, and the cure in ſuch caſes is for the moſt part impracticable: Varicous Ulcers among the Blood-veſſels are

ſpungy,

ſpungy, and hard to digeſt, being for the moſt part ſoak'd with a bloody ichor; of this kind are alſo ſome of thoſe that creep along the Veins in the Limbs, where they are troubleſome and difficult; but a ſingle varicous Ulcer may be eaſily healed and cicatriz'd, and is no ways dangerous.

Having premiſed theſe things in general with reſpect to Ulcers, I ſhall next proceed to give ſome inſight into the cure, wherein I ſhall be as brief as poſſible, in regard thoſe that are the moſt peculiar to Horſes will be treated at ſome length; ſuch as the Poll-evil, the Fiſtula, on the Withers, the Glanders, Quittor, and others that derive their origin from Tumors; and therefore I ſhall only here lay down ſome general directions, ſuited to their different kinds as they have been deſcrib'd, beginning with the moſt ſimple, and proceeding to thoſe that are the moſt complicated.

The method of curing Ulcers in their different kinds.

A ſimple Ulcer ſeldom needs any other method than to waſh it with Spirit of Wine, and then to dreſs it with pledgits ſpread with Turpentine and Honey. If there be an itching with little ſmall pimples, mix with every four ounces of the digeſtive one dram of Verdegreaſe in very fine powder, and apply it once a day, or once in two days, if the running be ſmall; if little papillæ or pimples ariſe in the bottom of the Ulcer of a faint red colour, let your dreſſing be mixed with Precipitate; *viz.* a dram of Precipitate in fine powder to every two ounces of the digeſtive. If the Ulcer be deep, and does not fill up in a kindly manner, as happens

to ſome weak declining conſtitutions, the following ointment will be proper.

Take common Turpentine four ounces, mix it with the yolks of two Eggs, and incorporate well together; then add half an ounce of Myrrh, and two drams of Maſtick or Frankincence in fine powder, and a ſufficient quantity of Tincture of Myrrh, to bring it into a due conſiſtence.

The Ulcer may be dreſſed every other day with this digeſtive, waſhing firſt with Spirit of Wine, or Tincture of Myrrh.

The common Baſilicon, made of pitch, roſin and bees-wax with oil inſtead of hogs lard, as directed in Mr. *Cheſelden*'s eſſay, will be proper to incarn theſe Ulcers, where there is a poor weak blood. The common yellow Baſilicon, or the *Unguentum Areum*, will do the ſame; the yellow Baſilicon is compounded in the following manner, and not only makes a proper dreſſing for ſuch Ulcers, but is uſeful in many other reſpects, as will be hereafter ſhewn.

Take of yellow Wax and Roſin of the Pine-tree, of each three pounds; of *Straſburg* Turpentine twelve ounces; of Linſeed Oil three pounds ſix ounces; melt them over a ſlow fire, then put in three pounds of *Burgundy* pitch, and let them melt into an ointment.

The *Unguentum Aureum*, or golden ointment, is as follows in the *London* Diſpenſatory.

Take

Take of yellow Wax half a pound; common Oil two pounds; of Turpentine two ounces; of the Roſin of the Pine-tree, and Gum Colophony, of each an ounce and a half; of Frankincence and Maſtick, of each an ounce; Saffron one dram.

Melt the Wax in the Oil, then put in the Turpentine, and let them boil together; and after they have ſtood to cool a little, ſift in the Maſtick and Frankincence in fine powder; and laſt of all add the Saffron, ſtirring them about with a wooden ſpatula, till they are thoroughly mixed and incorporated.

The common, or black Baſilicon, is thus made.

Take yellow Wax, fat Roſin and Pitch, of each half a pound; Oil of Olives nine ounces; melt them together, and ſtrain thro' a piece of canvaſs, to clear it from the gritty part of the Pitch.

Any of theſe will help to fill up thoſe Ulcers that are difficult to incarn, eſpecially if proper things at the ſame time be adminiſtred inwardly, to render the Horſe's Blood more balſamick, *viz.* Antimony and Gum Guiacum, of each equal quantities, to be divided into ounce doſes; let one of theſe be given every day: let his diet be good and nouriſhing; *viz.* the beſt hay and oats that can be got, and let him often have water-gruel to drink. Tar water may alſo be very proper in all ſuch caſes, which any Horſe

will drink, when he has been a little while uſed to it.

On the other hand, when an Ulcer fills up too faſt, and breeds fungous fleſh, it may be repreſſed with red Precipitate and burnt Allum in fine powder, of each equal quanties, or with Precipitate mixed with Baſilicon. If the *Fungus* be rank and ſtubborn, the Ulcer may be dreſſed with lint or tow dipped in Vitriol water, then wrung out dry, and laid to the Ulcer. If the edges be callous, and make a kind of brim round the Ulcer, Precipitate dreſſings always do the beſt; for which purpoſe,

Take either the black or yellow Baſilicon, four ounces; Oil of Turpentine, one ounce; mix theſe together, and then add three drams, or half an ounce of red Precipitate in fine powder.

This is to be ſpread on Pledgits of tow, which ſhould be large enough to cover all the brims of the Ulcer: I always found this method ſucceed better with Horſes, than either cutting the callous edges, or burning them down with cauſticks, or with the actual cautery; it is indeed ſomewhat ſlower, but more ſafe, not being ſo apt to inflame, which, inſtead of deſtroying the calloſities, frequently brings a freſh flux of humors, and renders theſe Ulcers more obſtinate, and liable to freſh fungus's, and other accidents, than they were before.

Cavernous Ulcers. Cavernous Ulcers, which are deep, narrow at their entrance, and wide at bottom, require to be laid open, or elſe the orifice ſhould be widened with

with a tent made of dry ſpunge, and this, inlarged by degrees, till no matter can be neſtled and conceal'd, as in a pit or well, which is ordinarily the caſe of cavernous Ulcers: if the Ulcer be in ſuch a ſituation, that it can be laid open with ſafety, and the Blood in a good diſpoſition, it may be cured with the ſame eaſe as a fleſh wound, obſerving the ſame method in caſe of fungus's, or in caſe it does not incarn and fill up, as has been already directed; and if it be found by ſearching, that it has alſo ſinuoſities, it ought to be treated in the following manner, as a ſinuous Ulcer.

Sinuous Ulcers ſhould alſo be laid open without loſs of time; if injections fail, and where bandage cannot be uſed to purpoſe; for when they are ſuffered to continue without cure, they run deep, and often times ſo much aſlant among the Tendons and Interſtices of the Muſcles, as at laſt to make their way among the ſinuoſities of the Bones, which renders their cure both tedious and difficult, and the inciſions into them dangerous, without a competent knowledge in anatomy. Sinuous Ulcers.

Fiſtulous Ulcers often have their origin and progreſs after this manner; firſt a Tumor, that forms an abſceſs; and if this is not cured by inciſion, and proper dreſſings, it runs deeper, and forms a ſinuous Ulcer; and when a ſinuous Ulcer comes to be of a long ſtanding, or when it happens to a conſtitution, where the juices are more than ordinarily ſharp and corroſive, it gathers in ſeveral ſinuoſities, and makes its way from one to another by little ſmall Tubes, or Fiſtulous Ulcers.

communicating paſſages, and forms a fiſtulous Ulcer, wherein the inſide is generally lin'd over, and glaz'd with a calloſity; ſo that no re-union can be made, till theſe communicating pipes or canals are laid in one, and their calloſities deſtroy'd, which after proper inciſion may be done with powder of red Precipitate, or with pledgits, dipped in a ſolution of blue Vitriol, waſhing the Ulcer every time it is dreſs'd with Spirit of Wine, or Tincture of Myrrh; and, where there is an ill diſpoſition, with Phagedenick Water, which may be made with two drams of corroſive Sublimate, (known to the Farriers by the name of White Mercury) diſſolv'd in a quart of Lime-water; and, in ſome obſtinate caſes, it may be made ſtronger by increaſing the quantity of the Sublimate.

Common Impoſthumes often by ill management end in Ulcers of the worſtkind.

Sometimes common Impoſthumes are chang'd into ſinuous and fiſtulous Ulcers, when theſe fall upon parts that naturally produce Abſceſſes, which of themſelves would perhaps have no ill tendency; but by introducing long hard tents, the Muſcles are ſeparated in the ſame manner as a piece of timber is cleft with a wedge, and thus by tearing the Membranes, the Abſceſs grows deeper, and even ſometimes runs into ſinus's that lie out of the way of common applications. The ſame thing is often helped on by frequent probing, for when an Abſceſs is once formed, the ſwelling and relaxedneſs of the parts contiguous to it, and the weight of the matter gathered in it, cauſes an eaſy ſeparation of the Membranes ſo as to form very deep ſinuoſities; to prevent which, the parts ought in all ſuch caſes to be kept

kept as firm and close as they are able to bear, and by this method many bad accidents may be prevented. But the reader may consult what I have observed in the cure of a Poll-evil, and the Fistula on the Withers, where this subject is more fully reduced to practice.

Putrid Ulcers always shew a malignant state of the Blood, and often a decaying constitution, as well in Horses as in men, and require internal means, such as are proper in pestilential and malignant distempers, or restoratives in weakly constitutions; and externally, sometimes cataplasms of Mithridate or *London* Treacle, especially where the natural heat is abated, and the motion of the juices are become languid; and if there continues a great deadness and insensibility in the part, a deep inflammation, blisters, and a gangrened water from the Ulcer, it may be touched with Butter of Antimony, and in every other respect treated as a mortification. Putrid Ulcers.

Varicous Ulcers are to be bathed with restringent fomentations made of Pomegranate or Oak Bark, Pomegranate Flowers, and buds of Red Roses, of each a handful; Roch Allum and white Vitriol, of each an ounce; boiled in three pints of Vinegar to a quart, to be used by way of fomentation, warm once or twice a day. The matter of these Ulcers is generally a thin bloody water, which will thicken or dry off by this method. If the vessels continue relaxed after the Ulcer is healed up, firing will be proper to strengthen the part, by contracting the coats of the Veins that feed the Ulcer; and in some cases it may be made so deep as to cut off their com- Varicous Ulcers.

munications, applying afterwards the Rupture plaiſter, mixed with a fourth part of Diachylon or De Minio. Watry Ulcers, which have ſome affinity to the varicous, have been treated of in the cure of the Farcy.

Cancerous Ulcers.

The laſt I ſhall mention under this head, are thoſe of the cancerous kind. I have already taken notice of the cancerous Ulcers that ſometimes come with the Farcy and Glanders; but beſides theſe, ſome Horſes are ſubject to cancerous Warts, which, when they are deep ſeated, are apt to degenerate into true Cancers. And I have alſo known Cancers take their riſe from rowels put in near the glandulous parts, particularly one on the breaſt of a Horſe, which after it was taken out, left a conſiderable knotty uneven ſwelling, with a ſtinking ichor, which continued in this manner for ſome time, when the Horſe did his buſineſs tolerably well; but being put upon ſome harder work than ordinary, the ſwelling increaſed, and turned to a very rank obſtinate Cancer, which ſoon proved mortal.

An inſtance of a rowel turning cancerous.

Moſt of theſe fontanells or *French* rowels are only placed under the ſkin, and when the ſkin is well opened and ſeparated from all its adheſions with the finger, and the rowel not too large and hard, it is ſeldom attended with any bad accident. But in this probably the muſcular fleſh and glandulous parts had been wounded, and the rowel may have been hard and ſtiff, and ſo cauſed a continual preſſure, which with a cancerous Blood, might eaſily produce this effect, as Gangrenes and Mortifications ſometimes proceed from the ſame cauſe.

I was

I was once concerned with another very fine Horſe belonging to a man of quality, that had a large cancerous Ulcer, that took its origin from a cancerous wart on his Flank, near the ſhort Ribs, on the near ſide; this ſeemed to have an adheſion to the tendinous parts of the Muſcles of the Belly, and to ſome of the uppermoſt inguinal Glands; it had been cut off once before I ſaw it; but was grown as large as a penny loaf, and was every day growing bigger, knotty and uneven, with a bloody ſtinking ichor over all its ſurface. I declined at firſt to meddle, but being importuned by a very eminent ſurgeon to make trial, I cauſed an inſtrument to be made on purpoſe to extirpate it, the blade about an inch and a half broad, and ſix inches long, turned round on the face like a table knife, with a blunt rounded point, the face of the inſtrument being only uſed in this operation; and having all other things in readineſs, and the Horſe thrown on his oppoſite ſide in a riding houſe, upon a good quantity of ſtraw, I cauſed the farrier to paſs one crooked needle armed or threaded with a piece of ſtrong tape, through the bottom of the cancerated ſubſtance, and another croſsways, and by taking hold of the four ends, pulled the whole ſwelling outwards, ſo that it was cut off with one ſtroke, after the manner of a cancerated breaſt. This method of amputation was quite new to the Farriers, with which they ſeemed very much pleaſed. It bled from ſeveral branches of ſmall arteries which had been greatly enlarged by a continual derivation of Blood to the ſwelling, (a thing

Another inſtance of a Cancer on a Horſe's Flank.

The manner of its cure.

thing uſual in almoſt all fleſhy ſubſtances) but this was ſoon ſtopped with little pledgits or buttons of lint, on which was ſpread white of eggs, and then ſtrewed with powder of blue Vitriol laid on the Mouths of the Blood-veſſels, and over them a thick covering of dry tow. After three days, it was opened and dreſſed with a proper digeſtive, and tho' it was flat and even when the ſubſtance was firſt cut off, it was now grown into a deep hole, ſufficient to bury the half of a two-penny loaf, occaſioned by the great afflux of Blood, and the dependent ſituation of the ſore thickening and encreaſing, the bulk of the circumambient ſkin, and the *Membrana Adipoſa* and *Panicle* that lies under it. This luxuriant growth of fleſh was kept for ſome time within compaſs, by ſtrewing powder of red Precipitate upon it, and a digeſtive made with eight ounces of common Turpentine, four ounces of Honey, half an ounce of Verdigreaſe in fine powder, and two ounces of Tincture of Myrrh and Aloes. But this not being ſufficiently repreſſive, the cure went on but ſlowly; and tho' it was dreſſed every day after the firſt opening, yet it continued to run exceſſively, and the ſore had ſtill a cancerous look, and the matter was ſometimes mixed with a ſtinking bloody ichor; ſo that I ſubſtituted other dreſſings of lint made of flaxen cloth dipped and dried ſeveral times in a ſolution of Roman Vitriol, till it was of a deep blue, this was laid dry over the ſore every day, and over that a thick cover of tow, above which was a canvaſs bolſter, bound round with a broad woollen ſurcingle, by which

it was cicatrized and cured in a ſhort time, leaving a ſmall bald place no bigger than a half crown piece, which I imagine to have been the original ſize of the wart from whence it took its riſe. This Horſe continued well two or three years, but having two or three more dry warts when this was extirpated, particularly one on the inſide of his Thigh, which having a communication with the inguinal Glands, turned moiſt with a cancerous ichor, and began to ſwell, which cauſed the gentleman to part with him. This was a very extraordinary caſe, and ſuch as I believe ſeldom happens; for I have known ſeveral moiſt warts of ſmall ſize, cut off with a knife or with a ligature tied tight round the root, without any return or other ill effect; but theſe were generally ſuperficial on the ſkin and not deep rooted. However, I look upon it as the beſt way always to extirpate ſuch things as ſoon as poſſible, to prevent the Blood being contaminated by them, which I believe ſometimes happens when they grow to any ſize, and ſpread their roots inwards among the Glands and Muſcles.

A cancerous wart on the Noſe of a Horſe.

I was ſome years ago adviſed with in the caſe of a Horſe that had a cancerous wart on the inſide of one of his Noſtrils, which began like a very ſmall moiſt Tetter or Warble about the bigneſs of a pea; but in the ſpace of ſome months, grew as large as a common-ſized fig, with a bloody ſtinking ichor, and induced a ſwelling and thickneſs into that Noſtril and upwards towards his Eye. This was cured with great difficulty, by burning and cauſtick applications;

cations; and I have alſo obſerved a cancerous diſpoſition in a cankered Foot, putting forth an exuberant growth of new proud fleſh reſembling a colly-flower, every time it was dreſſed, notwithſtanding the dreſſings were chiefly *Aqua Fortis*, Oil of Vitriol, Butter of Antimony, and ſuch like things, aſſiſted with a cloſe ſtopping of the Foot. But theſe will be treated of in their proper place. I ſhall only mention one inſtance more of a Horſe that had a true Cancer among the inguinal Glands, on the inſide of his Thigh, that affected his Sheath, and the cavernous part of his Yard, which was full of uneven, hard, knotty Tumors like Ganglions or indurated Kernels, the Ulcer cancerous in all its ſymptoms. It had been of a long ſtanding before I ſaw it, for the Horſe was grown emaciate, lean, hide-bound, and had little appetite. It was ſituated in ſuch a manner, that I ſhould have hardly meddled with it, if I had ſeen it from the beginning. But a Farrier undertook to cure it, under whoſe hands he died in a very ſhort time.

A Cancer among the inguinal Glands.

Of the GLANDERS.

The Glanders deſcribed.

THE Glanders is a malignant Ulcer, formed in the inſide of the Noſe of a Horſe, among the Glands that ſerve to diſcharge impurities or other ſuperfluous matter from the Head and Lungs, and is generally accompanied with a ſwelling of the Kernels under the Jaws. The matter diſcharged is for the moſt part either yellow or greeniſh, or tinged with Blood, and when Horſes have been long glandered, that the bones and griſtles are grown foul, the matter

matter then turns to a blackiſh colour, and becomes very fœtid and ſtinking. And this is what uſually paſſes for the *mourning of the Chine*, from a miſtaken notion of corruption and putrefaction of the Brain and Spinal Marrow.

Some cauſes of the Glanders.

The Glanders may ſometimes proceed from colds ill cured, in Horſes that are naturally of a weak conſumptive habit; ſometimes from the Strangles, as in the caſes above deſcribed, when the Tumors have been opened, before they were arrived to maturity, or when a Horſe has been overheated with exerciſe at the time when the Strangles were begun and coming upon him. All theſe things may produce incurable ulcerations in the Noſe, and an induration or hard ſwelling of the Glands about the Neck and Throat, which can never be removed. Sometimes the Glanders, or at leaſt a ſwelling of the Kernels about the Neck and Throat, with a profuſe malignant running at the Noſe, appears ſuddenly from an epidemical Fever, which ſoon turns mortal, of which I have known inſtances.

The true nature of the Glanders.

But the moſt common and uſual kind does not proceed from any of theſe cauſes, but from a bad diſpoſition in the Blood, which perhaps continuing for a conſiderable time unperceived, at laſt ſhews itſelf by a ſwelling of the Glands under the Jaw-bones, and a running at the Noſe, without any other viſible ſymptom of ſickneſs or diſeaſe; and this is what properly conſtitutes the Glanders in a Horſe, and is either of the ſcrophulous kind, the ſame with the Evil, or elſe cancerous; both which I have met with in practice, and may be either hereditary, or the effect of hard labour and bad keeping.

The

The ſigns. The ſigns are firſt a ſmall ſwelling of the Gland or Kernel, adhering cloſe to the inſide of the upper part of the Jaw-bone, with a running of a duſky yellow or greeniſh matter from the Noſtril on the ſame ſide, the other being for the moſt part extremely dry, and without the leaſt moiſture or humidity; unleſs when the diſtemper proceeds from any of the accidents abovementioned, and then the Glands are generally ſwelled on both ſides, and the running alſo proceeds equally from both Noſtrils. Sometimes the running at the Noſe comes before the ſwelling, or when the Kernel does not appear to be bigger than a hazle-nut, and ſometimes the Kernel riſes cloſe to the Jaw-bone, fixed and immoveable, and grows to a pretty large ſize before the running begins to appear. It is alſo to be remarked, that a Horſe is ſeldom ſeized with the true Glanders, till he is ſeven years old or upwards, unleſs it comes by infection or ſome ill management, againſt which no time or period of a Horſe's age can be proof. A glandered Horſe ſeldom coughs, or has any of the uſual ſymptoms of a cold, but in every other reſpect appears to be healthy and ſound, till the diſtemper has been of ſome continuance, and then the Horſe loſes his fleſh, his Eyes look dead, his Hair begins to ſtare and fall off from his Tail and Mane, with all the other ſymptoms of approaching death.

The prognoſticks. This diſtemper is always dangerous and ſeldom cured, and is moſt of all ſo when old Horſes are ſeized, that have been hard worked and poorly fed, ſo as both to impoveriſh and con-

contaminate their Blood. But when it comes upon a Plethora or fulneſs of Blood, the cure may be more eaſy, at leaſt ſome trial may be made. The Glander that comes by infection, bids fairer for a cure than when it is the effect of a long continued ill habit. Some Horſes are in a declining way for a conſiderable time before the Glanders appear, and when it is ſo, the caſe is deſperate. It is always a bad ſign in the Glanders, when the matter ſticks to the inſide of the Noſtrils, like glew or ſtiff paſte. When the inſide of the Noſe is raw, and looks of a livid or lead colour, and when the matter becomes bloody and ſtinks, it is a ſign of a Cancer; and when it looks of an aſh colour, the Bones and Griſtles are then corrupted and rotten; in all which circumſtances, it would be in vain to attempt a cure.

The Glanders is looked upon as the moſt infectious of all other maladies that can happen to a Horſe, and it is certainly ſo at ſome ſeaſons more than others; however, I have known glander'd Horſes, that were never cured, ſtand a conſiderable time along with ſound Horſes, thro' negligence or ignorance of the diſtemper, thinking it only to be an inveterate cold, and yet no harm happen. On the other hand, I have known a glander'd Horſe infect every one that has ſtood near him in the ſame ſtable; and I have alſo known ſound Horſes carried into a ſtable where glandered Horſes have ſtood, and by that means catch'd the infection, tho' the ſtable has been clean'd and air'd before they were brought into it; and other Horſes that have been ſet up along with them in the ſame ſtable,

The Glanders the moſt infectious of all other diſtempers that can happen to a Horſe.

ſtable, and in the very ſtalls where the glander'd Horſes ſtood, have eſcap'd the infection. We can be at no great loſs for this infectious and poiſonable quality in the Glanders, when the diſtemper is epidemical, and the effect of a peſtilential ſickneſs; but when it is otherwiſe, that the Glanders only proceeds from poorneſs of Blood, an ill habit of body, or ſome accidental cauſe, how that kind ſhould prove infectious is not ſo eaſy to be accounted for. It is certain ſome conſtitutions, both of men, and among the brute creatures, are more ſuſceptible of infection than others, and may alſo receive the contagion more readily at one time than another: to enter upon the reaſons would require a large diſquiſition, and ſuch as might poſſibly be built only on probable conjectures, of which kind many diſcuſſions on phyſical ſubjects are often grounded, and therefore the beſt precautions are thoſe taken from facts. I remember one very remarkable inſtance to this purpoſe in my own knowledge; about 37 years ago I happened to be along with an eminent phyſician, opening a ſailor that died in St. *Bartholomew's* hoſpital, who had a very large impoſthume in his Liver, that broke while we were endeavouring to clear it from the parts to which it adher'd, in order to take it out whole; the matter, which was very large in quantity, run over both our hands; my own hands ſuffered nothing by this accident; but a dry ſcurf appeared the next day all over the back of the gentleman's right hand whom I aſſiſted, which was placed under the Liver with mine, when the impoſthume

hume broke; this ſcurf ſoon peel'd off, and the *Cuticula* underneath look'd red, and was often covered with freſh ſcales, like the taint of a venereal infection, and continued in this manner for ſeveral months, till it was cured with mercurial applications.

There are ſeveral inſtances recorded by phyſicians and ſurgeons, of perſons that have been infected by ulcerated Cancers; *viz.* by converſing much, or lying in bed with ſuch as have laboured long under the miſeries of this diſtemper; and we have a very noted inſtance of an eminent phyſician in *London*, who was infected by his wife, who died of a Cancer in her breaſt; one very noted, and another remarkable caſe, was that of Mr. *Smith*, one of the ſurgeons of St. *Thomas*'s hoſpital, mentioned by Dr. *Turner*, in his Treatiſe of ſurgery, vol. i. page 84. who having touched the corroſive matter of a cancered breaſt with his tongue, could never get quit of the ſtench to the day of his death. And it is not impoſſible but other cadaverous Sores and Ulcers that ſend forth a continual noiſome ſmell, may have more or leſs the ſame effect, on ſome conſtitutions; and tho' the infection may not always ſhew itſelf in the ſame manner, and with the ſame direct ſymptoms as in thoſe ſubjects from whence it was received, yet it may induce others of an evil or even of a very fatal tendency.

How Horſes may be more eaſily infected than men.

But with regard to Horſes, it is reaſonable to ſuppoſe they may be yet more eaſily infected than men, and it even appears ſo in fact, from what we find by experience; and this may proceed

ceed not only from the largeneſs of their veſſels, which renders them more ſuſceptible of receiving poiſonable ſteams, but from many other concurring cauſes. Moſt ſtables are generally warm in the coldeſt weather, eſpecially if there be any number of Horſes to fill up the ſtalls; and in the ſummer they are extremely hot, whereby Horſes in this way of keeping have their pores always open, ſo as they may the more eaſily receive impreſſions from other Horſes that are near them. A Horſe has alſoan uncommon delicacy in ſmelling, and very acute in diſtinguiſhing things that way; ſo that he may the more eaſily draw in infectious ſteams by the Noſe. Many Horſes are apt to lick one another's ſores, like dogs, but eſpecially other Horſe's Noſes, when they ſee them ſnotty; and it is well known how troubleſome ſome are in licking their own rowels. That all theſe things may endanger Horſes is very plain, eſpecially when we conſider the numberleſs twigs of Nerves that are ſpread all over the Tongue and inſide of the Noſe, whereby the poiſon and infection is the more eaſily communicated; and therefore, tho' we have inſtances of Horſes that have eſcaped any viſible taint or infection, from ſtanding along with glander'd Horſes, yet the firſt and principal care ought to be to ſeparate them from all others that are ſound, to avoid danger. Theſe following cautions are alſo neceſſary, *viz.* all the litter where a glandered Horſe has ſtood ought to be taken away, the ſtable thoroughly cleaned, the manger and rack-ſtaves all ſcraped and ſcalded with hot ſoap ſuds, and

Cautions neceſſary to prevent Horſes being infected.

and then waſhed with water wherein tobacco has been ſteeped. The ſtanding fumed with burning pitch, ſulphur, or any other combuſtible matter, and the ſtable-doors and windows kept open till it has been ſufficiently aired. The hoods, cloathing, and all other appurtenances, as collars, ſurcingles, and ſuch like, ſhould alſo be removed, and if the hoods and cloathing be made of wool, they ought to be clean ſcoured and well aired before they are uſed to any other Horſe; for nothing is thought to harbour infection more than wool, cotton, and ſuch like ſoft things. The pail ſhould be well ſcalded with boiling water, or rather to be ſtaved and burnt; and if I had a glander'd Horſe of my own, I ſhould chuſe to burn all his cloathing. Theſe precautions are not only neceſſary in the Glanders, but in all diſtempers that are epidemical, or where there is any the leaſt ſuſpicion of infectiouſneſs.

Several fruitleſs trials made for the cure of the Glanders.

The Glanders is generally ſo fatal to Horſes, that I need not ſpend much time in laying down any method for a cure. I have indeed known many trials made for that purpoſe, but for the moſt part without effect. Some ſuppoſing the Glanders to be only an inveterate cold, treat it altogether as ſuch; others endeavouring to deſtroy the Kernel under the Jaw-bone, with the actual or potential cautery, think by that means to cut off the ſupply of matter that feeds the diſtemper; but the ſwelling generally grows worſe after theſe operations, and if it happens to be diminiſhed for ſome time, the running ſuffers no manner of abatement thereby, as I

have often obſerved; but rather increaſes and acquires a worſe diſpoſition than it had before. Some make a mixture of oil and vinegar, and uſe it by way of injection, others make uſe of ſharp waters for the ſame purpoſe. But while theſe things can neither be eaſily conveyed by a ſyringe, nor by any other way, to the ſeat of the diſtemper, they prove of little or no benefit alone, but rather aggravate all the ſymptoms, by deriving a greater load upon the Glands about the Neck and Throat than before, which often renders the diſtemper more obſtinate.

Inward means neceſſary in the Glanders.

As the Glanders is for the moſt part either of a ſcrophulous or cancerous nature, and by that means rooted in the Blood; therefore it is impoſſible to remove it any other way than by inward means, and theſe ſuch as few practitioners in farriery can be acquainted with; and therefore I ſhall conclude what I have further to ſay on this ſubject, with the method uſed in the cure of two glandered Horſes, whereby will be ſhewn how far the power of medicine, with a right management of their diet and exerciſe, may contribute to the removal of that obſtinate, and for the moſt part incurable, diſtemper.

Two Horſes cured of the Glanders.

Both theſe Horſes were in the firſt troop of guards. One of them had been in a ſtable where two or three Horſes had dy'd of this malady. He was coming eight, and had no viſible ailment beſides a knot under his Jaws, which was pretty large, and a naſty foul running at his Noſe on the ſame ſide. About the ſame time the troop Horſes were removed into new ſtables, he was left in one of the old by himſelf, as a diſtemper'd

ſtemper'd Horſe, and continued there alone for ſeveral months, without any abatement of the ſymptoms; but the winter and the damp weather drawing on, he catch'd a violent cold along with his other diſtemper. His Coat began to ſtare, and loſt both his appetite and his fleſh, which he never did before; he grew exceeding weak, and began to have a deadneſs in his looks, ſo that we were concluding to have him ſhot as incurable; but being a very fine troop Horſe, I reſolved to make a further trial, and in order to this had him removed to an infirmary ſtable belonging to the troop, where he could be kept warm, and in the hearing of the other Horſes, which chear'd him greatly, and after he got clear of his cold with proper pectorals, was walk'd out every day, and had his exerciſe in the free open air. He was conſtantly curry'd and dreſs'd thoroughly, and had his rack and manger often ſcrap'd and waſh'd, and his pail clean'd and waſh'd almoſt every time it was uſed. This induced him to eat and drink what was ſufficient, and by that means contributed greatly to his recovery; for altho' there was little alteration either of the ſwelling under his Jaws, or the running all the winter, yet he got ſtrength daily, his fleſh grew firm, and his Coat began to look ſmooth and ſhining. His medicines were chiefly balls compounded of Cinabar of Antimony, Gum Guiacum, Myrrh, Saffron, and Caſtile Soap; and ſometimes drinks of Guiacum, Rhaponticum, Dock Root boil'd in Spring Water, and ſometimes in Lime Water; and to heal the rawneſs and eroſion on the inſide of his

Noſe, was ſometimes uſed an injection of Vinegar, Spirit of Wine, and Mel Ægyptiacum; ſo that in the ſpring following, the Kernel began to leſſen, the running at the Noſe look'd whiter and of a better conſiſtence, and towards the end of the ſummer, the Kernel was no bigger than a hazlenut, and the running for the moſt part quite gone; and at laſt ended in ſome few drops of clear water, which uſed to diſtil now and then from his Noſe; ſo that it was ſomewhat above a year before the cure was compleated, and very near twelve months more before he durſt be truſted to go into the ranks, for fear of the other Horſes, till the day that the Diſtillers act commenced, when he was ſent among the reſt, with the parties that were ordered out upon that occaſion, and did his duty conſtantly afterwards, without the leaſt return of the diſtemper, or harm to any of his companions.

The other Horſe baffled all the efforts I was able to make for ſix or ſeven months, tho' he was conſtantly ply'd with the ſame medicines, and the ſame care and attendance, till at laſt he broke out in biles in ſeveral places, which every one that ſaw him pronounc'd to be the Farcy, tho' I was of another mind, for theſe never attack'd or followed the courſe of the Veins, but appear'd in ſome Interſtices between the Tendons of the Muſcles, near their inſertion both before and behind. The matter was laudable and of a good conſiſtence, and tho' many of theſe biles came in a ſucceſſion one after another, yet thoſe that broke ſoon healed up, and without the help of any other outward application beſides waſhing them with Spirit of Wine.

The

The Horſe grew hearty and active, the Kernel and the running at his Noſe leſſened and abated gradually. I imputed theſe critical biles to the amendment and new vigor of his Blood, from whence I expected, by continuing the ſame things inwardly, a perfect depuration, which accordingly happened, for in a few months after this he was perfectly cured, and did all his duty as before.

I have related theſe two caſes, only to ſhew the difficulty and trouble of curing the Glanders, even where the ſymptoms are favourable; for among the many glander'd Horſes I have ſeen, perhaps not one in fifty were to be meddled with; and therefore I ſhould never adviſe any one that has a Horſe truly glandered, ſo much as to attempt a cure. For, conſidering the length of time, the expence of keeping, and medicines, the conſtant care and attendance that is neceſſary in all ſuch caſes, and the uncertainty of the iſſue; conſidering alſo the continual fear of their infecting other Horſes, and many more inconveniencies, it will be found the beſt and ſafeſt way to beſtow all ſuch Horſes on the Dogs. For as a true Glanders ſeldom ſhews itſelf on a Horſe till he is old or full aged, it may be reckoned an imperfect criſis of ſome chronical diſtemper, and in that view may hold ſome affinity with the Evil, the Cancer, ſcorbutick and leprous Ulcers in the human body, as has been obſerved, which are more or leſs fatal, according to the aggravation of the ſymptoms, and the parts of the Body on which they fall, and at beſt only diſcover an impotent ſtruggle in nature,

ture, to overcome ſome riveted evil diſpoſition in the Blood, where the ordinary diſcharges have been for a long time faulty, and the Glands incapable of doing their offices perfectly. Of the ſame kind we may ſuppoſe many other diſtempers we ſee daily in old Horſes; when the flow of humors fall downwards, then the Legs ſwell, and ſometimes form continued Ulcers that are not eaſily, or perhaps ſafely removed; ſometimes the Canker in the Foot of a Horſe, when it does not come by accidents, is often of the ſame origin and tendency; and I have ſeen the Foot cancerous, likewiſe fiſtulous Ulcers both in the Pole and Withers, and in the Spines of the Back and Loins, when they proceed from an ill habit, and vitiated juices, often prove difficult and hard to cure. But of theſe in their proper place.

Diſcoveries made in opening glander'd Horſes.

In opening glandered Horſes, I have obſerved the Glands on the inſide of the Noſe, which in their natural ſtate are exceeding ſmall, and covered with a delicate fine Membrane, all thickened and inlarged, and the paſſage of the upper part of the Noſe, as if it was choak'd up with a piece of ſpunge, in ſome of a livid colour covered with a fœtid ſtinking matter. The Septum Naſi, and all the other Bones and Cartilages, turn'd carious and ſpungy, all the larger Glands alſo ulcerated, and in ſome the Thymus, or Sweet-bread, which lines the inſide of the Breaſt, full of putrid Ulcers from corrupted Lymph, and in others the Lungs alſo ulcerated, and full of tubercles or knots, with all the veſtiges of an univerſal rot.

Horſes

Horſes are ſometimes ſubject to other maladies that affect their Noſes, beſides the Glanders, particularly what the farriers call the Canker in the Noſe, which I think comes the neareſt to that which in Man is called the *Oxena*. Some few of theſe caſes have fallen in my way; they diſcharge an ugly ſtinking matter, and the Ulcer looks black like an eſcar made with a cauſtick. The way to cure this Canker is to purge, and give Antimony inwardly, and apply pellets of Lint or Tow to the part, dip'd in Honey of Roſes, Mel Ægyptiacum, and Tincture of Myrrh, equal quantities, thruſt up with a probe, which may be renewed as often as they drop out. This ſort of Ulcer is ſeldom attended with a ſwelling of the Glands, unleſs it be neglected; in which caſe, it may indeed end in the Glanders. If it comes by the ſtinging of a Waſp or Fly, which ſometimes happens at graſs, ſyringing the Horſe's Noſtril with a little ſharp Water, will do the buſineſs, without any further trouble. The ſharp Water may be made of Spirit of Wine and Vinegar, of each a quarter of a pint, the bigneſs of a walnut of burnt Allum, and half a ſpoonful of Honey, ſhaking the Vial when it is uſed.

Horſes ſubject to other diſtempers in their Noſes.

Sometimes we alſo meet with a polipus in the inſide of a Horſe's Noſe, tho' I believe this happens but ſeldom. It is a fleſhy ſubſtance, of a dark yellow, or red colour, with one or more roots that faſten it to the Membranes. I never ſaw but one, which I extracted not long ago from a Horſe's Noſe, that was juſt taken up from graſs; the thickeſt part of it was about three

three quarters of an inch diameter, which I drew out with my finger and thumb without an inſtrument, and had but two roots, one pretty large and the other ſmall; it bled pretty much for two or three days, while the milder applications were uſed, but it was ſoon cured with this injection, *viz.* Spirit of Wine and Vinegar, of each four ounces; White Vitriol diſſolv'd in Water, two drams; Ægyptiacum, one dram; Honey, two ounces. This was injected once a day for about ten or twelve days, but theſe are in the end apt to breed Ulcers, which continue running many years like the Glanders, but are not infectious.

Of the POLL-EVIL.

The Poll-Evil, its deſcription and ſituation.

THE Poll-Evil is an abſceſs near the Poll of a Horſe, form'd in the Sinus's between the Noll Bone, and the uppermoſt Vertebra of the Neck.

It is eaſily known by the ſwelling on the Poll, which is ſometimes very large, and reaches downwards towards the Vives; and when it comes to be opened, or if it break of itſelf, it always diſcharges great quantities of matter of a viſcid conſiſtence, not unlike dirty ſize.

The cauſes of the Poll-Evil.

The cauſes are various; ſometimes it proceeds from blows and bruiſes on the Poll, which afterwards feſter, and either through a fault in the Blood, or from neglect, turn to the Poll-Evil; ſometimes by being hurt with the collar, eſpecially when the collar happens to be new, and made of very thick ſtiff leather, where the edges

of

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of the ear-band are ſharp, and when the Blood happens to abound with ſharp and acrid ſalts, the leaſt irritation with ſuch things creates a painful itching, which is frequently accompany'd with ſwelling and impoſtumation. Sometimes the Poll-Evil comes by ſtraining the Muſcles and Ligaments of the Neck in drawing heavy loads. But that which truly conſtitutes the Poll-Evil, generally proceeds from one or other of theſe cauſes, *viz.* either from ſome violent Fever, which caſts itſelf off critically upon the Poll, or from a decline, when it happens to old Horſes that have been worn out with hard fare, and hard labour, or from ſurfeits. In all which caſes, the cure will be found both difficult and troubleſome.

The prognoſticks and cure.

When a Horſe ſwells on his Poll, by reaſon of a blow or bruiſe, it may be eaſily cured, and the Poll-Evil prevented, only by faſtening back the ear-band of the collar, ſo as it may not preſs upon the part, and bathing it two or three times a day with warm Vinegar or old Verjuice; and if the Hair be fretted off with an ouſing thro' the Skin, uſe two parts Vinegar, and one part rectify'd Spirit of Wine. By this method I have prevented many of theſe contuſions impoſtumating and turning to a Poll-Evil; but if there be an itching, and increaſe of the ſwelling, with heat and inflammation, then the ſafeſt way is firſt to bleed, and to apply bread poultices made with Milk and Elder Flowers, once or twice a day, till the heat and itching are gone, and the ſwelling abated; this method, with the help of phyſick,

phyſick, will generally prevent ſuch ſwellings turning to the Poll-Evil.

But when the Tumor has all the ſigns of ripening, and turning to an apoſteme, in that caſe neither bleeding nor purging is neceſſary, but may rather prove hurtful; and the beſt method is to bring it forward as ſoon as poſſible with poultices made of Rye Flower, Oatmeal, or Barley-meal, firſt pretty thick, and then into a proper conſiſtence, with Ointment of Marſhmallows, or with Hog's Lard, and Oil of Turpentine, but the Marſhmallow Ointment is the beſt. When the Tumor is ripe and full of matter, it may either be opened, or ſuffered to break of itſelf, which I have always ſeen attended with the moſt ſucceſs, for then it is much eaſier to come to the ſource than when it is opened; and the notion that many have conceiv'd, of the matter corroding the parts by lying too long undiſcharg'd, is not always well grounded, for it ſeldom does more in the time it remains, than to bring a ſlough from the Tendons of the Muſcles, which I have always found as neceſſary to relieve the pain and anguiſh of the tendinous parts, as the ordinary matter of a boil or phlegmon is to relieve the membranous and more fleſhy parts, and renders the cure in the end more eaſy and expeditious. When it has been empty'd once or twice by moderate ſqueeſing, or ſo often as to give eaſe (for by the poſition of the matter, and the manner of its lodgment, it will always fill again) it may then be laid open, wherein care ſhould be taken to keep as much as poſſible the direction of the Muſcles,

and if poſſible avoid cutting the tendinous Ligament that runs along the Neck under the Mane; for if the Muſcles be cut acroſs, and the Ligament alſo wounded, the Horſe will go nigh to have a ſtiffneſs in the motion of his Head and Neck; and I can remember to have ſeen one that had his Head ſtand awry after the cure of a Poll-Evil, which muſt have happened by ſome ſuch accident; and therefore the beſt way, if the matter be gathered on both ſides, is to make an opening on both ſides; for the leaving the Ligament intire greatly facilitates the cure.

The Farrier ſhould be provided with a leaden or an iron Probe, made round and ſmooth at the end, and no ways ſtiff but pliable. Some Farriers do not take care to provide themſelves with proper inſtruments, but cut a Twig off an old birch broom, and uſe it inſtead of a Probe, whereby they often do miſchief, for the Probe ſhould be uſed with all the care imaginable, otherwiſe by piercing the thin Membranes, a way may be eaſily made to form freſh abſceſſes, which were not there before, and ſometimes in parts where the hurt they do cannot be eaſily remedied. The way to uſe the Probe is to introduce it as gently as poſſible, and then to widen the Orifice ſo far as to be able to introduce the Finger. The Orifice may be widened either with an Inſtrument, or with a ſhort Tent made of dry Spunge; and if the matter be good and laudable, like what runs from a fleſh wound, there may perhaps be no occaſion for any further operation, and no other dreſſing neceſſary beſides a common digeſtive made of Turpentine, Honey, and Tincture of Myrrh, ſtrewing

it

it with ground Precipitate, if the Fleſh grow too faſt. But if the matter flow in great quantity, and reſemble melted glew, or if it be of an oily conſiſtence, and the abſceſs fills as often as it is emptied, there will be need of a ſecond inciſion. In this operation, the Farrier ſhould not go too deep with his inſtrument, but uſe his Finger, and widen the wound with it as much as poſſible, and at the ſame time obſerve where there are any drains, and uſe a ſmall leaden Probe to try how far theſe reach; if they go but a little way, they will perhaps need little more beſides common dreſſings, but if they penetrate inwards between the Interſtices, near the Tendons of the Muſcles, it may be neceſſary to make a further inciſion, yet ſo as to avoid wounding the Tendons, if by any means poſſible, that the bottom of the abſceſs or abſceſſes, if there be more than one, may be diſcovered.

What precautions are neceſſary in opening the Poll-Evil.

In the Poll-Evil, and all other deep abſceſſes, Tinctures, and other thin liquid mixtures, are to be prefer'd to ungents, liniments, or digeſtives of any kind that are of a thick conſiſtence, not only becauſe Tinctures are more cleanſing, and do not promote the growth of fleſh ſo faſt as the other, but becauſe they paſs more eaſily into the more hidden parts of the abſceſs; and for this purpoſe, the following mixture is of ſingular benefit in the cure of all ſuch maladies.

Take White Wine Vinegar, and rectify'd Spirit of Wine, of each half a pint; half an ounce of White Vitriol diſſolv'd in a little Spring

Spring Water, Tincture of Myrrh four ounces; mix them together, and ſhake the bottle every time it is uſed.

Let a little of this mixture be heated in a ladle, and waſh the abſceſs with ſome tow that has been well ſoak'd in it, filling it up with tow moiſtened in the ſame, which ſhould be laid in as looſe as poſſible, that the fleſh may have room to grow, pouring ſome of the ſame mixture all over the dreſſing. Sometimes bathing with this tincture makes an effectual cure, without the formality of any other dreſſing beſides covering the outſide with a pledgit or bolſter of dry tow. By this means it can be done more frequently and with great eaſe, and is a benefit where there is a continual drain of ſharp humors to be often cleaned. In ſome caſes once or twice a day may be neceſſary, till the flux decreaſes, and no ill diſpoſition appears from the ſore; after which bathing conſtantly with Spirit of Wine alone will perfect the cure, laying over the part a quantity of tow ſoaked in Vinegar and the white of Eggs beat together. This will ſerve inſtead of bandage, and lie as cloſe to the Poll as a ſaddle will lie to the Back, and come off and on with the ſame eaſe whenever there is occaſion to dreſs it. And for an outward cover a piece of woolen cloth, with two loops of liſt to go round the Horſe's Ears, and to be tied underneath with tapes.

The following mixture is yet more ſharp than the other, and may be uſed where the profuſion of

of matter is very great, and cannot be eaſily abated, with an exceſſive growth of proud fleſh.

Take eight ounces of a ſolution of blue Vitriol; this is made by diſſolving half an ounce of Roman Vitriol in half a pint of Spring water, pouring it off from the fœces or dregs; mix with this Spirit of Wine and Vinegar, of each ſix ounces; Tincture of Myrrh and Tincture of Euphorbium, of each an ounce.

This is to be uſed as the other, by waſhing the abſceſs with it often, till the matter flows in leſs quantity and comes to a good conſiſtence. I have often directed theſe ſharp mixtures to be uſed in the Poll-Evil and other foul abſceſſes with great ſucceſs; but if the proud fleſh be riſen very high, it muſt be cut out firſt, neither of theſe being ſtrong enough to deſtroy it in a Horſe, where it grows extremely tenacious; but when that is extirpated, the frequent uſe of theſe tinctures will for the moſt part prevent its growing again, and often make a cure without any other application, eſpecially if the Horſe be young and otherwiſe ſound.

Several uſeful remedies for the cure of the Poll-Evil.

The Phagœdenick Water (ſo called by the ſurgeons becauſe of its corroſive quality) is alſo of great uſe to cleanſe all ſuch foul Ulcers. It is made by diſſolving two drams of corroſive Sublimate in a pint of Lime Water, waſhing with this, and then filling the abſceſs with looſe doſſils of tow ſoaked in Ægyptiacum and Oil of Turpentine, made hot, continuing in this method till the cure is effected.

But the moſt compendious way of curing the Poll-Evil, where there is an exceeding bad diſpoſition

poſition and a very great foulneſs, is by ſcalding, as the Farriers term it. Several of our beſt Farriers are now got into this method, and ſucceed very well in it. The manner is as follows.

Take Corroſive Sublimate, Verdegreaſe in fine powder, and Roman Vitriol pounded, of each two drams; green Copperas, half an ounce; Honey or Ægyptiacum, two ounces; Oil of Turpentine and Train Oil, of each eight ounces; rectified Spirit of Wine, four ounces; mix theſe together in a pint bottle for uſe.

Some make their ſcalding mixture milder, by uſing red Precipitate inſtead of Sublimate, and white Vitriol inſtead of the blue Vitriol; others leave out the Train Oil, and uſe only Oil of Turpentine and Linſeed Oil, which makes but little alteration; and ſome uſe, with good ſucceſs, a mixture of Verdegreaſe, Oil of Turpentine, Train Oil, and Oil of Vitriol, *viz.* Verdegreaſe, half an ounce; Train Oil, half a pint; Oil of Turpentine, four ounces; and Oil of Vitriol, two ounces.

The ſucceſs of ſcalding for the Poll-Evil.

The manner of ſcalding is firſt of all to clean the abſceſs very well, with a piece of ſpunge ſoaked in Vinegar, and ſqueezed. Then put a ſufficient quantity of the mixture into a ladle with a ſpout or noſil, and when it is made ſcalding hot, pouring it into the abſceſs, cloſing the Lips together with one or more ſtitches, in proportion to its ſize. This is to remain ſo for ſeveral days, and if good matter appears, and not in an over great quantity, it will ſoon do well,

without any other dreſſing beſides bathing with Spirit of Wine. But if the matter begins to flow in great abundance, and of a thin viſcid conſiſtence, it will require to be ſcalded a ſecond time, or oftner, if the ſame ill diſpoſition continues. The corroſive ingredients, whereof theſe liquid mixtures are compounded, would be harſh to human fleſh, but agree very well with Horſes, whoſe Fibres are more ſtiff and rigid, and abound more with oily and viſcid juices, which ought to be repreſſed; and therefore ſuch ſharp applications help greatly to contract the veſſels of the Tendons on the hind part of the Head and upper part of the Neck, which when apoſtemated, ſpew out a matter that can hardly be digeſted, nor the profuſion abated without the help of ſuch things, to which the additional heat of the fire greatly contributes. By this means the mouths of the veſſels are ſhut up, the gorged and relaxed Fibres are ſtrengthened and reſtored to their natural tone and firmneſs, ſo that the divided parts ſoon meet together, and fill up with a ſolid growth of new fleſh. This method of proceeding is chiefly uſeful when the Poll-Evil happens to be the criſis of an acute Fever, or when it happens to Horſes that have been ſurfeited, or under ſome other chronical diſorder; for in all caſes proceeding from common accidents, cleanſing tinctures and frequent dreſſings will do the buſineſs.

A very extraordinary cure of a Poll-Evil that required ſcalding.

I ſhall here ſubjoin the caſe of a Horſe that was cured of a Poll-Evil by ſcalding, wherein are ſome very extraordinary circumſtances that will give further light into the nature of this malady,

malady, and the method how ſuch caſes ought to be treated, eſpecially when they proceed from ſome previous ſickneſs, which is often the cauſe of a Poll-Evil, tho' hitherto not much attended to by the practitioners in farriery.

This was a young troop Horſe that had been pampered for ſale, and had fallen into a very dangerous Fever, attended with a great ſtupor and heavineſs, with a total loſs of appetite, and a loathing of all manner of food, and had but little relief till a large critical ſwelling roſe on his Poll, at firſt about the bigneſs of a penny loaf, but in a few days grew to a much greater ſize; the weight of which made him ſink his Head as low as his manger, and by degrees the ſwelling grew ſo great, that his Muzzle came within a few inches of the ground, and roſe ſo ſuddenly all along his Neck, and down to his Shoulders and Fore-Legs, that it was impoſſible to raiſe his Head above a foot from the ground. His Neck meaſured above a quarter of a yard broad over his Mane, his Shoulders were blown up to a monſtrous ſize, like ſome Horſes I have ſeen ſtaked under the Arm; and indeed he grew ſuch a ſpectacle, that all who ſaw him thought it was impoſſible he ſhould recover. But one thing ſtood much in his favour, that as the ſwelling increaſed, his appetite grew better, and while he continued in that poſture, with his Mouth to the ground, which was about three weeks before the Tumor broke, he eat his whole allowance of hay every day, which was laid down before him a little at a time, and licked up bran and oats out of a flat baſket, ſo much

as was ſufficient for a Horſe in health, that did no buſineſs; and drank plentifully of water-gruel, which was given by holding about half a pail full at a time, edge-ways, that he might get his Head into it. When the Tumor broke, it diſcharged a very large quantity of curdled matter at firſt, which ſoon changed to a viſcid duſkiſh ſlime; the orifice was on one ſide, near the Noll-bone, tho' the matter had alſo a drain from the other ſide, and continued running for above a month or five weeks, in very great quantity, before the ſwelling of his Neck and Shoulders came down, and before he came to the free uſe of his Neck and Limbs, which were greatly gorged. The running by this time was much abated, but the matter of no good conſiſtence; and therefore, having now no other diſorder beſides the abſceſs, and that reduced to a moderate compaſs, I cauſed it to be laid open, and the part ſcalded, in the manner already deſcribed. I deferred opening it all this time, tho' I was much ſollicited to have had it done ſooner; for I found by this delay his Blood was thoroughly cleanſed, and the diſtemper confined wholly to a ſingle part; whereas, if it had been laid open ſooner, the anguiſh might again have been renewed, the diſcharge been leſs perfect, the ſwelling of the Neck and Shoulders would not have come down ſo well, and a great deal of the impacted juices might have been retained, ſo as to keep the veſſels in thoſe parts gorg'd, and in ſuch a manner as might not have been eaſily removed, either by applications to the part, or by artificial drains and iſſues of any kind.

After

After the firſt ſcald the matter was ſmall in quantity, and looked of a good colour and conſiſtence, but in ten days time it began to look thin and of a dirty colour again; ſo that I cauſed him to be ſcalded a ſecond time: after which it healed up, and he had three or four doſes of purging phyſick and ſome antimonial powders given him; but the part being ſtill weak, and the Horſe naturally full of motion, eſpecially with his Head, it ſwelled again ſome months afterwards, and broke, which accident proceeded from this, that the muſcular fleſh was waſted more on one ſide of his Pole than on the other, which gave ſome reſtraint in pulling down his Head, and conſequently cauſed freſh pain till the fleſh grew, and that the Muſcles on both ſides came to their proper equilibrium, which is abſolutely neceſſary for true motion; and tho' it broke out again once or twice afterwards, yet the ſwelling was only like a large warble, the matter was good, and did not continue running above two or three days. And about a year afterwards the fleſh on one ſide was grown equal to the other, and the Horſe continued ſound and uſeful many years, without any very viſible mark or deformity.

I have related this caſe to ſhew, that it is very well worth while to ſet about the cure of a Poll-Evil in a young Horſe, eſpecially when it happens to be the criſis of a Fever or any acute diſtemper, or when it proceeds from a blow or a bruiſe ill managed, or any other accident; but when the Poll-Evil is the effect of an old ſurfeit, when it happens to an old Horſe worn out

with labour, or to a Horſe that has been a long time in any declining way, it will both prove difficult, and at the ſame time ſcarce worth the trouble and expence of a cure; for the Poll-Evil in ſuch circumſtances often, like the Glanders and other putrid Ulcers, ſeems only to be a weak effort of nature, rather to continue life than to reſtore health and ſtrength, and while endeavours are uſed to cure that diſtemper, others are generally increaſed. The humor indeed may be checked, but Horſes in theſe circumſtances are apt either to die in the cure, or become uſeleſs, and ſometimes theſe Abſceſſes in bad conſtitutions penetrate into parts ſo far out of reach, and are of ſuch a ſordid diſpoſition, that they reſiſt all means whatever.

Of a Fiſtula in the WITHERS.

A Fiſtula on the Withers often no other than a ſinuous Ulcer.

THIS malady is often to be met with among hackney and draught Horſes, but ſeldom among Horſes of value. Every large ſwelling on that part that comes to ſuppurate is for the moſt part called a Fiſtula, tho', from what I have obſerved in moſt of theſe caſes, it is more frequently a ſinuous Ulcer than a Fiſtula.

It uſually begins on the top of the Withers; the ſwelling at its firſt appearance ſmall, but ſoon increaſes and ſpreads on both ſides, and often reaches downwards to the Shoulders, and forwards towards the Neck, forming an impoſtume, which by reaſon of its ſituation eaſily becomes ſinuous, unleſs great care be taken to prevent it. When the ſwelling riſes chiefly on one

TAB. XXIX. *Vol. 2. p. 358.*

one ſide, the impoſtume generally breeds on that ſide only, altho' the other ſide may alſo have ſome ſhare of the ſwelling, by reaſon of its vicinity; but when it riſes equally on both ſides, and inclines forwards towards the Neck, it then forms itſelf between the high ſpines, where there are many muſcular tendons, and ſometimes ſo deep as to have its chief ſeat in the ſinus's of the firſt or ſecond Vertebra of the Cheſt, and ſometimes in the fourth; and when the ſwelling lies forward, the Ulcer is often ſeated in the ſinuoſities of the lowermoſt Vertebra or Rack-bone of the Neck; and where it is a true Fiſtula, there is generally matter gathered in all theſe ſinus's, which have communication one with another.

The cauſes of a Fiſtula on the Withers.

Theſe diſtempers on the Withers, take their riſe from various cauſes, ſometimes from bruiſes of the ſaddle, which being neglected or ill managed, gives birth to this malady. I have known a hot ſharp humor with eruptions, breed ſinuous and fiſtulous Ulcers here, tho' this might alſo have been prevented by proper care; and ſometimes ſinuous and fiſtulous Ulcers proceed from malignant Fevers, whereby the vitiated juices are tranſlated or caſt off critically on the Withers, in the ſame manner as ſometimes happens in the Poll-Evil.

The ſigns and prognoſticks.

When Impoſtumations and Ulcers on the Withers proceed from a bruiſe, it is no ways dangerous, and before it begins to impoſtumate, may be cured by repellers, as other contuſions generally are; and if it impoſtumate and break on one ſide only, and the ſwelling on the other

ſide ſinks and ſubſides, it is always a good ſign, and may be cured in the ſame manner as any other common impoſtume, and the ſinuoſities, if there be any, may be laid open with ſafety. But if matter gather on both ſides the Withers, with a paſſage from one to the other, between the Spines, the cure will be both tedious and difficult. If it begins deep among the ſinus's of the lowermoſt Rack-bones of the Neck, which is often the caſe when it is the criſis of a malignant Fever, the cure not only become tedious, but exceſſively troubleſome, and the Horſe is generally very much diſfigured, by cutting off the fleſh to get to the bottom of the Ulcer. But when there are ſeveral ſinus's, and theſe communicate one with another, it is then a true Fiſtula, and is not only difficult, but the cure may prove uncertain and perhaps impracticable, eſpecially if the Horſe be old or of a bad conſtitution.

The method of cure.

In curing the maladies on the Withers, the firſt thing to be done is to examine into the cauſe, that the ill accidents attending ſuch things may as much as poſſible be prevented; if the ſwelling proceed from a bruiſe of the ſaddle, from a blow or any other ſuch cauſe, and is attended with ſymptoms that threaten a ſinuous Ulcer or Fiſtula, as we ſuppoſe here no fault in the Blood, and when as yet we can find no matter gathered in it; therefore the firſt application ſhould be to bath it with hot Vinegar or Verjuice; and if that does not altogether ſucceed, an ounce of Oil of Vitriol may be mixed with a quart of the former, or half an ounce of white Vitriol,

Vitriol, firſt diſſolv'd in a little water, and then mixed with the Vinegar or Verjuice. I have known this method have a wonderful good effect in reducing large ſwellings on the Withers, by preventing impoſtumation; ſo that the cure has been effected in a ſhort time.

If the ſwelling be attended with heat and ſmarting, or if little hot watry pimples ariſe, as this is often the fore-runner of an ulcerous diſpoſition when theſe eruptions come on the Withers, the beſt way to prevent that is, to bath it often with this mixture, *viz.*

Two ounces of Crude Sal Armoniack, boiled in a quart of Lime Water or Spring Water, where that cannot be had, with a handful of Pearl Aſhes or Wood Aſhes, pouring off the decoction when ſettled, and mixing with it half a pint of Spirit of Wine. This will ſeldom fail to prevent a Fiſtula, where there are hot eruptions. Anointing the part afterwards with Linſeed Oil, or Oil of Elder, to ſoften and ſmooth the Skin, which when the ſwelling comes down, is apt to ſhrivel and turn dry.

I remember a very large Tumor of this kind on the Withers, cured by the application of Aqua Fortis, once in two days. It firſt burnt off the Hair, as if it had been ſinged with a hot iron. Afterwards it turned the whole ſwelling into a quaggy ichor, which caſt off ſloughs of glutinous matter, whereby the ſwelling daily abated, and the ſcar that remained, with a baldneſs and loſs of Hair, was ſmall and inconſiderable.

rable. I have generally found the ſame good effect from Oil of Vitriol, or the powder of white Vitriol in mixture with Spirits and Vinegar, as has been elſewhere directed; for tho' theſe ſwellings feel pretty hard to the touch, yet when they happen to be cut open before matter is gathered within them, they are nothing but meer ſpunge, proceeding from the extravaſated juices of the ſkin and the tendinous Fibres of the Muſcles, which are plentiful about the Withers; and the maladies cauſed thereby, cannot be eaſily conquered without ſuch things as will in ſome meaſure deſtroy the exuberant ſubſtance. In theſe caſes I likewiſe preſcribe bleeding and purging, and afterwards antimonial powders.

No repellents proper when the ſwelling is critical.

But when a Horſe has had a malignant Fever, and the morbifick matter is caſt upon the Withers, forming there a Tumor or Swelling, no repellents ought to be uſed, but rather ſuch things as will bring the matter ſpeedily to maturity; for which purpoſe I generally uſe the ointment of Marſh-mallows, mixed with a ſmall quantity of Oil of Turpentine, or a poultice made with Rye-Flower, Hog's Lard, and Oil of Turpentine, *viz.* to a pint of Rye-Flower, ſix ounces of Hog's Lard, four ounces of ointment of Marſh-mallows, and four ounces of Oil of Turpentine, mixed and made warm in a pipkin, keeping the Shoulders always covered with a woollen cloth under his body-cloth, till the Tumor breaks or is fit to be opened.

The right way to open Tumors on a Horſe's Withers.

The beſt way in opening theſe Tumors is never to make inciſion till the Tumor either breaks of itſelf, or till the matter contained in it

it comes to maturity, which may be known by its being ſoft and yielding, eſpecially in the place where the matter is gathered, for if it be opened before it is ripe, the whole ſubſtance will be no other than a meer ſpunge, ſending forth nothing but a bloody ichor, which ſoon degenerates into a ſordid Ulcer. I have mentioned this by way of precaution, having frequently ſeen errors of this kind committed by raſh and unſkilful perſons opening Tumors on the Withers, in this crude and unripe ſtate; and after inciſion, have thruſt their probe quite through the fungus among the tendinous origins of the Muſcles; whereby they have given birth to ſinuoſities, which perhaps would not have happened but by ſuch ill management: and, by a continuance of the like conduct, have at laſt made their way into the bones of the Neck and Shoulders, and ſometimes under the Shoulder-blade. The way to avoid this danger, is to ſuffer the matter to ripen thoroughly, and then to open the Tumor with a hot iron, made ſomewhat ſmall at the point, but rounded and not ſharp. When the matter has been emptied, a leaden probe may be uſed to direct a further opening, which is almoſt always neceſſary in ſuch caſes; and this opening ſhould be made downwards from the orifice, and a little oblique and ſlanting, as far as the hollowneſs reaches, which is beſt done with a ſmall ſemilunar or half round firing-iron, made hot, and by introducing your finger, you may know the condition of the impoſtume better than by any other trial; and by further opening in this manner, as you ſee occaſion, may prevent

The finger the ſureſt and beſt probe, where it can be uſed.

prevent its turning to a ſinuous Ulcer or Fiſtula.

Several neceſſary cautions.

If an Impoſtume gathers alſo on the oppoſite ſide, it may be opened in the ſame manner; and when there is a communication, that, upon opening one ſide, the matter drains from the other, the beſt way in this caſe is alſo to make a perforation into the other ſide of the Withers, taking care not to cut through the white line or ligament, which runs along the Neck to the Withers, and at the ſame time avoiding to extirpate all the fleſh, which is frequently done when the ſwelling inclines forward towards the lowermoſt Vertebra of the Neck. For the loſs of ſo much fleſh not only cauſes an ugly deformity, but renders the cure very tedious, and the Horſe becomes unfit, when cured, for any gentleman's uſe.

By obſerving the above-mentioned precautions, I have had Horſes cured in a very ſhort time, where great quantities of matter has been gathered on both ſides the Withers, and where there was a paſſage under the white line from one impoſtume to the other, *viz.* by opening both ſides from above downwards, ſometimes the length of three or four inches, where the ſwelling and collection of matter was large, and has been healed with little or no ſcar or blemiſh. The method of dreſſing was always according to the diſpoſition of the ſore. Some of theſe Ulcers will even fill up and heal with a common digeſtive mixed with Precipitate, waſhing and bathing the ſore, and wherever the ſwelling reaches, with rectified ſpirits; others are more tenacious, where the matter is oily, yellow,

yellow, and viſcid, and in great quantity, ingendering proud fleſh; when this happened, I always found the moſt ſucceſs from the following mixture, *viz.*

Eight ounces of a ſolution of blue Vitriol, that is, Roman Vitriol diſſolved in water, *viz.* half an ounce of blue Vitriol diſſolved in a pint of water; Oil of Turpentine and rectified Spirit of Wine, of each four ounces; the beſt white Wine Vinegar, ſix ounces; Oil of Vitriol and Ægyptiacum, of each two ounces.

Mix theſe together, and apply pledgits ſoaked in it, ſcalding hot, bathing the ſwelling as often as it is dreſſed with Spirit of Wine and Vinegar, of each a pint; Oil of Sulphur, two ounces; dropping it in, and mixing by little at a time. The pledgits ſhould be laid as looſe as poſſible into the apertures, that the Ulcers may incarn, and when it fills up with ſound fleſh, any common digeſtive, mixed with a ſmall quantity of Precipitate, ſpread on pledgits of ſufficient breadth to cover the ſore over all it edges, will make a perfect ſound cure. If the Ulcer turns ſinuous, the ſinuoſities muſt be laid open, and in other reſpects treated as ſuch; and when it happens to be a true Fiſtula, all its ſources muſt be deſtroyed, if poſſible, either by the potential or actual cautery, that is, with a cauſtick or a hot iron.

When the Bones are foul.

Sometimes the Bones are rendered foul by the original formation of the malady, eſpecially when

when it happens to be the criſis of a malignant Fever; this generally creates a great deal of foul naſty work, when it falls on the lowermoſt Vertebra of the Neck, or on any of the ſinus's of the bones of the Withers, among the high Spines; and moſt of all when it turns fiſtulous, becauſe, in all theſe caſes, it is often neceſſary to extirpate a great deal of the fleſh before a cure can be effected. However, the propereſt cautions are, in ſuch deep Ulcers, firſt to make trial of ſome proper injection, which ſometimes proves ſucceſsful, *viz.* where the bones are foul, a mixture of equal parts of Tincture of Myrrh and Tincture of Euphorbium, bathing all around with the above-mentioned mixture of Spirit of Wine, Vinegar, *&c.* the Tinctures of Myrrh and Euphorbium clean the bones and help them to exfoliate; and this ſharp mixture, by preventing an immoderate flux of humours falling upon the part, renders the cure both more eaſy and expeditious than by the application of digeſtives, even tho' they be mixed with Verdegreaſe or Precipitate; becauſe all fungus's being full of little papillæ, are apt to be gorged and ſoaked with the matter, which a digeſtive, by its viſcid and thick conſiſtence, cannot ſo well prevent as a liquid mixture made ſomewhat ſharp and cauſtick; for this ſinks into all the little quag-holes that are ſo uſual in theſe malignant Ulcers, and at the ſame time levels and deſtroys the riſing and exuberant papillæ, whereby the Ulcer grows ſmooth, dry, and ſoon heals up and cicatrizes. For the ſame reaſon ſcalding, directed in the manner as in the cure of the Poll-Evil,

Sharp tinctures often preferable to digeſtives in very ill diſpoſed Ulcers.

Evil, is both ſafe and expeditious, where the Ulcer is large and deep in the fleſh, but in other caſes it may not be neceſſary. But the reader may conſult what has been ſaid concerning the cure of the Poll-Evil, *&c.*

CHAP. XIII.

Of LAMENESS proceeding from Strains and other Accidents.

Of Strains in the Shoulder.

A HORSE may be ſtrained and hurt various ways in the Shoulder, ſometimes in leaping, ſometimes in riding on very uneven ground, when the rider is careleſs and does not keep a good hand; and ſometimes by a falſe ſtep, even where the ground is very ſmooth, eſpecially when a Horſe has not been hardened and much uſed to exerciſe; and ſometimes Horſes get lame travelling in deep potchy grounds; this will not only affect the Shoulder, but their other Joints, which ought to be carefully examined into. A freſh lameneſs in the Shoulder may be eaſily known, becauſe a Horſe does not put out that Shoulder as the other, but with pain, and ſets the ſound foot hardily to the ground to ſave the other. But when a lameneſs in the Shoulder proceeds from humors, it is not ſo eaſily diſtinguiſhed, becauſe often both Shoulders are more or leſs affected, and ſometimes alſo the Muſcles of the Breaſt,

which cauſes a Horſe not only to drop, but to fumble in his going.

All ſudden lameneſſes in the Shoulder may be eaſily cured, unleſs there be a faulty Blood, which renders outward and inward applications both neceſſary; of this kind I have diſcourſed fully in other parts of this Treatiſe, and therefore here we only ſuppoſe a ſimple Strain where the Blood is in good plight, tho' it may be obſerved, by the way, that where the Shoulders are fleſhy, or the Cheſt narrow and pin'd, the cure will be more tedious and uncertain.

Moſt of the grooms and farriers, and many gentlemen, uſe mixtures of oils, of which I have ſeen numbers of receits with little or no variation, made up of Oil of Turpentine, Oil of Spike, Oil of Swallows, Oil of Earth-worms, and a ſmall quantity of Oil of Vitriol, which indeed is a guard againſt the oilineſs of the other ingredients, and makes them not quite ſo relaxing as otherwiſe they would be. Theſe are applied not only to the Shoulder, but to other Strains; and ſome add to theſe a ſmall quantity of Oil of Petre and Oil of Origanum, which, however, I think is no advantage, but a detriment; theſe however, frequently ſucceed when they draw out an eruption on the part like a mild bliſter; but when the Blood is no ways faulty, the ſpeedieſt and quickeſt way of curing Strains in the Shoulder, is with coolers and repellers, ſuch as old Verjuice or good Vinegar, in the following manner.

Take

Take Verjuice or Vinegar, of either a pint; Bole Armoniac diſſolved in it, half an ounce. The cure.

Let the part be bathed with it two or three times a day, all over the lame Shoulder, from the Withers almoſt to the Knee, and half way upon the Breaſt; for all the Muſcles on thoſe parts have a conſent in the motion of the Shoulder; by this method I have cured many new Shoulder-lameneſſes, without any other help beſides a few days reſt. But, if the lameneſs continues without any ſwelling,

Take the beſt Vinegar, half a pint; Spirit of Vitriol and rectified Spirit of Wine, of each two ounces; Bole, half an ounce. Let this be applied as the former.

When the Shoulder is very much ſwelled and relaxed, a different method is neceſſary, for then we may ſuppoſe a fluxion upon the Joint; in this caſe fomentations will be the moſt proper; for which purpoſe,

Take the Tops of Wormwood, two handfuls; Southern-Wood, half an handful; Chamomile-Flowers, one handful; St. John's Wort, one handful; Bay Berries, bruiſed, three ounces; Crude Sal Armoniac, four ounces; Wood-Aſhes and Wood-Soot, of each an handful; boil theſe in two gallons of Chamber-lye.

Take a quart of this fomentation, and add to it half a pint of Spirit of Wine, and foment the Horſe's Shoulder with woollen cloths large The help fomentations give to rowels

Inobſtinate Shoulder lameneſſes.

enough to cover the Shoulder, wrung out dry while it is hot; a rowel in the point of the Shoulder, in this caſe, often does great ſervice, and ſeldom fails of a cure with the help of the fomentations, for the fomentation cauſes the rowel to run double the quantity that it would do otherwiſe, and carries off any grumes or ſettlement that may lodge in the interſtices of the Muſcles.

Sometimes the lameneſs is in the Joint, but very rarely, and in that caſe nothing comes up to fomentations or rowels, as the only means to draw out the anguiſh, and prevent an influx into it; for if the oily matter that is ſeparated in the Glands of the Joint once condenſes and turns to a hardened glew, all the means in the world will not reſtore that Horſe to perfect ſoundneſs. A great many ignorant pretenders, when a Horſe has been newly lamed in the Shoulder, peg up the other Foot, or ſet on a patten-ſhoe, to bring the lame ſhoulder upon a ſtretch, and ſome turn them immediately out to graſs; but all this is very prepoſterous, and the direct way to render him incurably lame; a patten-ſhoe being only neceſſary in old lameneſſes, where the Muſcles have been a long while contracted, and the like helps are often uſed to the human body, by the ableſt and moſt ſkilful ſurgeons; but in all lameneſſes of this kind, the moſt ſimple method of cold applications will be the moſt ſerviceable, and this I have found from daily experience. Some Horſes have an involuntary motion of the Muſcles, which extend or bend the Hough: this is called the Stringhalt; it generally proceeds from ſtrains or blows, which at length cauſe an habitual

A patten-ſhoe hurtful in all freſh lameneſſes.

habitual contraction in these Muscles, by too great a derivation from some one particular part. This (except of long continuance, or is hereditary, as where it runs in the Blood) may be removed by the use of proper physick, warm fomentations, with good rubbing of the part, and other means, which conduce to make a revulsion in the part, and promote circulation in the Blood.

Of Strains of the Knees and Pasterns.

THESE are more rare than strains in the Shoulder, and seldom happen but from kicks or blows, of which I have treated already, where I have discoursed on Tumors from outward accidents; but when a Horse receives strains on his Knees they are commonly violent, and often the Pastern Joints are hurt at the same time, because they generally happen from a Horse's coming down a steep place, where his whole weight rests upon his Knees and Pasterns; and I have seen the Knees and Pasterns very much swelled after such accidents. The usual way, in these cases, is to lay on cold charges, which dry so soon that they often do very little service; but if the swelling continues, with heat and inflammation, the best method is to breathe them out with poultices made with Oatmeal or Rye-Flower, boiled up in grounds of Beer and red Wine Lees; for poultices are conveniently and easily applied to these parts; and if Wine Lees cannot be had, Chamber-lye may be used in their stead. After the swelling and inflamma- The cure.

tion is come down, let the part be bathed twice a day with the following mixture.

Take Vinegar, one pint; camphorated Spirits of Wine, four ounces; white Vitriol, diſſolved in a little water, two drams.

This will ſtrengthen the Horſe's Knees and Paſterns, if both have been ſtrained; but if only one Knee or one Paſtern be ſwelled, and that you only ſuſpect a weakneſs in the other joints, there will be no occaſion to uſe the poultice, except to the part that is ſwelled and inflamed.

I have known great weakneſs remain in the Paſterns after ſtrains, where the moiſture of the tendons and ligaments has been ſo ſlippery, that one could hear them jar and crack upon every motion of the Horſe; theſe Horſes are ſeldom fit for any buſineſs till they are perfectly cured. In country places they generally run at graſs, where, in time, they often recover, eſpecially if they be young; but in *London*, the ſpeedieſt way is to bliſter and fire them, and then a ſhort run at graſs generally perfects the cure.

Of Strains of the COFFIN.

Lameneſs of the Coffin.

WHEN the Coffin Joint is ſtrained, a Horſe often continues a long time lame, without diſcovering where the lameneſs lies, becauſe at firſt a Horſe does not favour it much upon the bending of the Foot, only upon planting his Foot upon the ground; but in time there will grow ſuch a ſtiffneſs in that joint, that he will only touch the ground with his Toe, and it will

The cauſe.

be

be impoſſible to play the joint with one's hand; the only method alſo to remove this ſtiffneſs, is bliſtering and firing, which often ſucceeds, unleſs the ſtiffneſs and contraction has been of a long ſtanding.

Of Strains in the Back-ſinew.

A Back-ſinew ſtrain is one of the moſt common and uſual accidents that happens to a Horſe; it generally proceeds from hard riding upon dry grounds, and from other cauſes, where the roads are ſtony and bad, and ſometimes where they are potchy.

It is eaſily perceived by the ſwelling of the Sinew, which ſometimes reaches from the backſide of the Knee down to the Heel; and when it is ſo, a Horſe does not care to ſet his foot even upon the ground, but for the moſt part, in his ſtanding, ſets it before the other.

The uſual way of curing this malady, is with cold charges, which often ſucceed very well, if frequently renewed; ſome uſe currier's ſhavings bound round the Sinew with a bandage, and this alſo anſwers very well in ſome caſes; but there is nothing either ſo ready or efficacious as Vinegar or Verjuice, with Bole, being often in a day ſoaked well into the Sinew, warm; and if any thing of the lameneſs or ſwelling remains after this, and after the heat and inflammation is gone out, a mild bliſter that has nothing corroſive in it beſide the cauſtick ſalts of the flies, will generally ſpeaking effectuate a cure, and bring the Sinew fine. The cure.

When hot and relaxing Oils mixed together are uſed to the Back-ſinew, which many practitioners are fond of, becauſe they ſometimes ſucceed in Horſes that have their Sinews ſtrong and rigid, yet they are apt to engender Windgalls of a bad kind, or make the Veins on each ſide the Sinew to be full and gorged; and I have known Horſes lame for two or three years together with theſe Varixes in the Veins. Bliſtering in this caſe has very little or no effect, but firing through the Vein till the Blood comes, for nothing leſs will remove that weakneſs. After the firing the whole Leg, from the Knee down to the Heel, and all the hollow places on both ſides to be charged with a good ſtrengthening plaiſter, made of Adherniam, ſtiring into it, when it is melted down, *viz.* to four ounces of the Adherniam, add Dragon's Blood, Maſtick and Bole, of each half an ounce; and this will perfect the cure, eſpecially if the Horſe be turned to graſs for a month or five weeks, or in the winter, if he run a little while in a ſmooth yard, where he has good dry litter.

Of Lameneſs in the STIFFLE.

The cauſe. A Stiffle lameneſs is cauſed by thoſe accidents that produce all other lameneſſes in the Joints. When a Horſe is lame in the Stiffle, The ſigns. he generally treads upon his Toe, and cannot ſet that Heel to the ground; ſome ſtrains in the Stiffle are violent and ſwell pretty much, but I hardly ever knew any of them incurable, unleſs bad methods had been uſed in the beginning.

ning. They commonly come well with cooling applications, ſuch as have been preſcribed for the Shoulder; but if the ſwelling be very large and puffy, which ſometimes happens, recourſe muſt be had to fomentations to breathe out any collection of humors that may be engendered by the violent fluxion upon the part; ſometimes impoſthumations follow in ſuch caſes, and when theſe break and run, there is commonly an end of all danger.

I was once concerned with a Horſe that had a ſwelling roſe in his Stiffle, with ſo violent a ſtrain, that he was not able to touch the ground with his Foot, for above ſix weeks. This Horſe was cured with the conſtant uſe of fomentations, thoſe made with Crude Sal Armoniack and Pot Aſhes; it never impoſtumated in any part, but came down gradually; the anguiſh had been ſo great, that for ſix months after he was compleatly cured, if any perſon went on that ſide of him he held up his Leg, and would not put it to the ground till he ſaw no body in ſight.

Of Lameneſs in the Whirlbone and Hip.

THOUGH I have had abundance of Horſes that have been cured of lameneſſes in the Whirlbone and Hip, when they have been diſcovered in time, yet the cure of theſe lameneſſes is generally the moſt uncertain of all others, becauſe at firſt a Horſe ſhews very little of lameneſs, and ſcarce ever in his walk, but when he comes to trot; and as a Horſe that is hurt in the Stiffle creeps with his Toe upon the ground, ſo

a Horſe that is hurt in the Whirlbone, when he trots drops backwards upon his Heel, and moſt people are apt to make ſlight of thoſe ſtrains when they are new; but if any one conſiders the largeneſs of the ſocket in which the round head of the Thigh-bone is placed, the ſtrength of the ligaments that cover that joint, and the vaſt quantity of the oily mucus that ſerves to lubricate that joint which is ſhut up by theſe ligaments, and by the ſtrong tendons of the Muſcles, they will not be ſurpriſed at the difficulty of making a cure there, becauſe the ſeat of the lameneſs lies in a great meaſure beyond the reach of outward applications; this generally comes by ſome very violent ſtrain, but when the Muſcles of the Hip are only affected, that kind of lameneſs is often cured without much difficulty.

A lameneſs of the Whirlbone hard to be cured.

Whether the lameneſs be on the Whirlbone or in the Muſcles of the Hip, the firſt intention as to the cure is the ſame, and that is, to begin with coolers and repellers, ſuch as have been already recommended in all other freſh lameneſſes, and they ſhould be uſed very liberally, at leaſt four or five times a day to thoſe parts, and when the ſtrain is quite new, there will be hopes of ſucceſs; and I have known ſeveral Horſes cured ſo, without any other application; but when the aliment has once lodged itſelf in the joint, ſeveral methods muſt be uſed, ſuch as bliſtering and firing, which ſometimes ſucceed ſo far, that a Horſe will recover with a very ſmall limp, and will be able to go through a great deal of buſineſs; ſome put in rowels on

the

the inſide of the Thigh, and on the outſide, a little below the Whirlbone; but I never remember any great ſucceſs from ſuch things, but have ſeen a great deal of miſchief done by placing their outſide rowels upon the ligament of the joint, which in ſome Horſes I have been ſent to would have ended in mortification, which was prevented by proper fomentations and taking out the rowel.

Of Strains in the Hock.

THE Hock is a part very liable to hurts and ſtrains, but we meet with many of them that are eaſily cured when taken in time, though they have been very much ſwelled only with ſoking them well with coolers and repellers; but when the ligaments are hurt it cauſes great weakneſs, and ſometimes the cure becomes difficult enough; the ſureſt way in this caſe, where there is great pain and weakneſs, is to ply the part well with fomentations. I ſeldom have known this method fail of ſucceſs, unleſs ſome very improper means have been uſed in the beginning, which ſometimes leaves ſtiffneſs and calloſities. If the calloſity or hardneſs grows only on the outſide, it may be effectually removed by repeated bliſtering, and without any hazard; but if the calloſity is on the inſide, it may be got out of the reach of outward applications; the beſt remedy in this caſe is firing the part very gently with ſmall razes or lines, and pretty cloſe together, after which apply the following charge.

Strains of the Hocks eaſily cured, unleſs when the ligaments are hurt.

Take

Take the mercurial plaiſter of the ſhops, four ounces; the *Emplaſt. de Cicuta cum Ammoniaco*, two ounces; let theſe be melted down together, and applied chargeways over the Hock, renewing it once or twice as it crumbles off.

Sallenders and Mallenders.

Sometimes the diſorders of the Hocks produce the *Sallenders*, which is a hard ſcabby ſore that comes in the bending of the Hock, the ſame with that in the bending of the Knee, called the *Mallender*. Gummy fleſhy legg'd Horſes are the moſt ſubject to theſe maladies, and the beſt method of curing them is, clip away the hair and clear the ſcabs, then apply the following liniments, *viz.*

Take Æthiops Mineral, half an ounce; white Vitriol, one dram; ſoft green ſoap, ſix ounces; let them be incorporated well together in a mortar, till they come to a ſalve.

There are abundance of remedies preſcribed for this diſtemper, but this I have always found to be the beſt.

CHAP. XIV.

Of the Diſeaſes of the FEET.

The natural defects of the Feet.

THE Feet are ſubject to various diſeaſes and accidents, of which I have already been ſomewhat particular in the firſt part of this treatiſe, but here I ſhall take them in their order, and ſo proceed to their cure. Some defects in

the Feet are natural, which renders them very difficult to cure; among the natural defects of the Feet are narrow Heels, Hoof-bound or binding of the Hoofs, when the Hoofs are exceſſively hard, or when they are too ſoft and thin. A fleſhineſs of the Foot, eſpecially about the Frog, and under the Sole, are alſo great defects in the Feet, a flat Foot is likewiſe defective, as alſo when the quarters grow too high. Theſe are what we obſerve to be natural defects of the Feet, and the cure of moſt of theſe defects proves only palliative.

Of Narrow HEELS.

NARROW Heels are for the moſt part a natural defect, but are often rendered incurable by bad ſhoeing; ſome farriers hollow the quarters ſo deep and ſo thin, that one may pinch them in with one's fingers, and think by that means to widen them out by a ſtrong broad webbed ſhoe; but this turns them narrow above, and wires their Heels, and dries up or rots the Frog. The beſt way in all ſuch caſes is not to hollow the Foot in ſhoeing, and pare nothing out but what is rotten or foul; if the Foot be hard or dry, or inclined to be rotten, bathe it often with Chamber-lye, or boil two pounds of Linſeed, bruiſed, in two quarts of Chamber-lye to the conſiſtence of a poultice, then add to it ſix ounces of green ſoft ſoap, and anoint the Foot with it every day, rubbing a little of it upon the Sole, or,

The beſt way to mend theſe defects.

Take

Take two ounces of Bees-Wax; ſix ounces of freſh Butter; one ounce of Tar; and as much Linſeed Oil as will make it into the conſiſtence of a ſmooth ointment.

This may be carried from place to place, and uſed daily as the other.

Binding of the HOOF.

The cauſe.

WE ſay a Horſe is Hoof-bound, when the Hoof is ſo tight round the Inſtep, that it turns the Foot ſomewhat into the ſhape of a bell; this is ſometimes cauſed by ſhoeing, as above deſcribed, to widen the Heel, and ſometimes by cutting the Toes down too much, which give that ſhape to the Foot, and cauſes the Horſe to go lame; this is eaſily diſcovered both by the Eye and by the Horſe ſetting his Foot down ſo tenderly. I have known Horſes ſometimes have ſo much of the Toes cut down, that they could not go till all the nails were pulled out before.

The cure.

Hoof-bound Horſes have commonly pretty hard Feet, and the only way to remedy this defect, is to draw the Foot down from the Crownet almoſt to the Toe with a drawing knife, making ſeven or eight lines or razes through the Hoof, almoſt to the quick; afterwards keep it charged with pitch or roſin, till the lines are worn out in ſhoeing, which will require ſeveral months, and therefore moſt people turn ſuch Horſes to graſs till the Feet grow down, though I have known ſome Horſes get clear of the pain after drawing in this man-

ner, and have been able to travel and do good ſervice in a few weeks.

The ſame method is alſo to be uſed when one Foot only happens to be periſhed by corns or bruiſes that have been long under cure. Horſes Feet are ſometimes wounded by ſharp ſplinters, ſtubs, &c. running up into the tender parts within the Soal, or by the taking up of a kennel nail; after the nail, or whatever elſe, has been carefully taken out, the part ought to be bath'd with warm Oil of Turpentine and Spirits of Wine, and pledgits of Baſilicon laid over it by way of a ſtopping. If it turns ulcerous, and runs a foul and ſtinking matter, and much proud fleſh ariſes, the dreſſings are to be made of Honey, Venice Turpentine, and Ægyptiacum mixt together, ſtrewing firſt all over the ſore, a little Præcipitate in fine powder. This to be repeated every other day.

When the Feet have been prickt in ſhoeing, they may be treated in the ſame manner.

Of Sand Cracks.

A Sand Crack is a little ſmall rift or cleft on the outſide of the Hoof; if it runs in a ſtrait line downwards and penetrates through the horny part of the Hoof, it proves troubleſome enough to cure; but if it paſſes through the ligament that unites the Hoof with the Coronet, it is then apt to breed a Quitter or a falſe Quarter, which are very dangerous. When the Crack only penetrates through the Hoof, without touching that ligament, unleſs the Hoof be hollow

A Sand Crack deſcribed.

The progneſticks and cure.

hollow from the membranes underneath, it may be eaſily cured, only by raſping the edges ſmooth, and applying thick pledgits of yellow Baſilicon, and binding them down with a piece of ſoft liſt, and ſometimes a piece of very large packthread waxed, and bound round, like a hoop, will anſwer the end very well; but if you perceive a hollowneſs under the Hoof, and that the cleft has a tendency to penetrate through the griſtle or ligament, the beſt way in that caſe is to fire out of hand, with irons that are not made too hot, firſt raſping the part very thin and wide from both ſides of the cleft. After firing, the Horſe muſt not be ſuffered to carry any weight for a conſiderable time, but be turned out to graſs, or into ſome good farm-yard, if it be in winter, till his Foot is grown.

Of a QUITTER, or QUITTOR.

A Quitter deſcribed.

A Quitter is an Ulcer formed between the Hair and Hoof, moſt uſually on the inſide quarter of a Horſe's Foot; it often proceeds from treads or bruiſes, and if the conſtitution be bad, or the Hoof happens to be hollow near that part, it then proves dangerous; but if it only is ſuperficial, and does not get under the Hoof, it may be cured with cleanſing dreſſings, bathing the Coronet round every day with Spirit of Wine, and dreſſing the ſore with yellow Baſilicon mixed with Precipitate, *viz.* Two drams of red Precipitate, finely powdered, to four ounces of Baſilicon; this will cure any ſuperficial Ulcer in the Coronet; but if the matter forms itſelf a lodg-

The cure.

TAB. XXX. *Vol. 2. p. 382.*

Fig. II.

Fig. I.

a lodgment under the Hoof, there is no way then to come at the Ulcer but by taking off part of the Hoof; and if this be done well and artfully, the cure may be effected without danger. I have known the matter, after one Ulcer has been cured, from freſh lodgments that have required more of the Hoof to be taken off afterwards, and yet have in the end ſucceeded very well, only ſuch accidents as theſe require ſome time. But when the matter happens to be lodged near the quarter, it obliges the Farrier ſometimes to take off the quarter of the Hoof, then the cure is for the moſt part only palliative; for when the quarter grows up it leaves a pretty large ſeam, which weakens the Foot, and this is what is uſually called a falſe Quarter; and a Horſe that has this defect ſeldom goes quite ſound; they are generally Horſes of the heavy breed which are moſt ſubject to ſuch things, and will afterward do a good deal of drudgery in a cart or waggon.

A falſe quarter.

Of the GREASE.

I Need ſay very little or nothing concerning the Greaſe, having diſcourſed of that already in the method of dieting and other parts of this treatiſe; it is generally the effects of a faulty Blood, and happens moſtly to Horſes of groſs conſtitutions; ſometimes it is owing to careleſsneſs in the perſons that look after them, for want of keeping their Limbs clean and dry; but for the moſt part Horſes that run late in the winter at graſs are the moſt ſubject to it; their

The greaſe.

What Horſes moſt ſubject to it.

Blood

Blood by that means growing poor and dropſical, expoſes them firſt to ſwell in their Limbs, and then to eruptions, which run a fœtid ſtinking matter, not unlike melted glue, and when it turns ſharp and corroſive, it becomes troubleſome enough; ſometimes the Greaſe only breaks out behind, ſometimes before; and when the conſtitution is very bad, it will break out in all four Limbs at once.

The cure of the Greaſe.

When the Heels are very much ſwelled and full of hard ſcabs, it is neceſſary to begin the cure with poultices, which may either be made with Turnips or with Rye-flower, Turpentine and Hog's Lard, mixed with Spirit of Wine or red Wine-Lees; and when the Horſe comes to move his Limbs with leſs ſtiffneſs, it will be proper to purge, which in ſome caſes muſt be repeated five or ſix times before you can have the deſired effect, of which ſeveral forms may be ſeen in the preceding part of this treatiſe; where there are pretty large ſwellings in the Limbs, diureticks that work powerfully by urine, often ſucceed better then purges.

Take four ounces of yellow Roſin, one ounce of Sal Prunellæ, grind them together in a mortar, oiling the end of the peſtle to keep them from running into lumps; unrectified Oil of Amber, one dram; let this be mixed in a quart of clean forge-water, and given to the Horſe in the morning faſting.

He is to be kept faſting two hours before and two hours afterwards, then giving him cold water

water, and riding him moderately, the ſame as in a purge.

Some Horſes that have weak ſtomachs, will not bear thoſe drinks ſo well as others, and therefore they may be the ſeldomer adminiſtred; to ſuch one in two or three days will anſwer the end, tho' not quite ſo ſoon as to thoſe that can take three or four of them every morning running.

If there be any remains of the humour, the Legs may be bathed with Spirit of Wine and Vinegar, equal parts; and if that is not ſharp enough, add a little Ægyptiacum to it, or if the Heels remain ſomewhat ſcabby and dry, uſe the following ointment.

Take yellow Baſilicon and Honey, of each two ounces; Verdigreaſe in fine powder, three drams; let this be applied once a day till the cure is effected.

If any weeping remains near the Heels, apply the following poultice, which will go nigh to dry it up.

Take Honey, four ounces; white or red Lead, in powder, two ounces; Verdigreaſe, in fine powder, one ounce; mix them together, and apply as much as is ſufficient, upon tow, to the part, and renew it once in three days.

Rats-tails generally creep from the Paſtern to the middle of the Shank, along the maſter Sinew, or on one ſide of it, ſometimes moiſt, but more frequently dry: the following is the moſt proper for the cure of this and moſt other ex-

creſcences about the Legs and Feeet, as Scratches, Kibes, Figs, &c.

Take black Baſilicon and ſoft Soap, of each two ounces; Linſeed Oil, one ounce; white Vitriol, in fine powder, half an ounce; incorporate theſe well together, and dreſs the part with this ointment every day, wiping it clean firſt.

The crown ſcab, how to be managed.

The Crown ſcab is an humor that breaks out round the Coronet, is very ſharp and itching, and attended with ſcurfineſs; moſt uſe only ſharp water for the cure of it, but the ſafeſt way is to mix ſome Marſh-mallows and yellow Baſilicon, equal parts, ſpread upon tow and laid all round the Coronet, and at the ſame time let the Horſe have a doſe or two of phyſick, or a couple of the diuretick drinks, as above deſcribed in the Greaſe.

Of a running Thruſh, or Fruſh.

A running Thruſh deſcribed.

A Thruſh is an impoſthume that gathers in the frog, eſpecially in Horſes that have fleſhy Heels, and have deep clefts in their frogs. Horſes that have their frogs clean and dry, and of a moderate ſize, are ſeldom ſubject to ſuch accidents; ſometimes they are attended with the Greaſe, in Horſes that are liable to ſwelled Heels, and when care has not been taken to cure them in time, when proper methods are uſed to ſuch Horſes they are ſeldom dangerous, but are ſometimes profitable to Horſes of fleſhy and foul conſtitutions, becauſe they drain off a great many

many bad humours; and when ignorant people are too ſollicitous to dry them up too quick, I have known them ſometimes affect a Horſe's Eye, and ſometimes bring out a ſharp humour on the ſurface of the ſkin, reſembling a ſurfeit.

The ſafeſt way in managing Thruſhes, when the impoſthume appears, is to pare out the hard part of the frog, or whatever appears rotten, and waſh the bottom of the Foot two or three times a day with old Chamber-lye; there is ſeldom or ever any thing more neceſſary for the cure of a Thruſh, for this is ſeldom ſo perfect but that they will relapſe at ſome certain times, in one Foot or another, where Horſes are inclin'd to them; but then they may be cured by following the ſame method.

But when a Horſe happens to have been neglected, or has a very ſtrong flux of humours into the part, it is apt to degenerate into a Canker; the beſt way to prevent this, is to begin with medicines that are not ſo ſharp, of which I would adviſe the following:

Take Spirit of Wine and Vinegar, of each two ounces; Tincture of Myrrh and Aloes, one ounce; Ægyptiacum, half an ounce; mix them together, and bathe the Thruſh where-ever there appears a more than ordinary moiſture; and lay a little tow dipt in the Tincture over the Ulcer, after the manner of a ſtoping.

At the ſame time the Horſe ſhould be purged with one or another of the purges I have recommended for ſwelled Legs, and it would not

be amiſs to give him one or two of the diuretick drinks inſerted for the Greaſe; I have known this method not only ſcour Horſes from the Canker, but from the other ſymptoms that ariſe from drying up theſe Ulcers too ſoon.

Of a Canker in the Foot.

A Canker for the moſt part proceeds from Thruſhes, when they prove rotten and putrid; ſometimes a greaſy humor, when it has been of a long ſtanding, and is got into the ſinuoſities of the Coffin-joint, will run down to the Frog and under the Sole, and turn to a Canker; ſometimes Bruiſes, Corns, and ſometimes taking up a kennel or channel nail, when theſe are ill managed, they will produce the ſame effect, but the moſt uſual cauſe is from a rank Thruſh.

The Canker is ſo luxuriant in ſome conſtitutions, that in one night's time it will get into the Muſcles of the bottom of the Foot, turn them all into a quag, and at the ſame time rot the Sole. A luxuriant Canker very much reſembles a Cancer, both in ſmell and aſpect; for if it be neglected dreſſing for a few days, it will grow ſeveral inches high, and when the ſlough is taken off, it will be underneath all full of papillæ, reſembling a colly-flower, except in the colour, which is of a very pale red, and variegated. The method that farriers uſe for the cure of a Canker, is for the moſt part with hot oils, ſuch as double Aqua Fortis, Oil of Vitriol, and Butter of Antimony, which indeed are very proper;

TAB. XXXI. *Vol. 2. p. 388.*

Fig. II.

Fig. I.

proper; for ſome Cankers are of ſo quick a growth, that nothing leſs than ſuch cauſtick medicines will keep them under; ſome uſe Sublimate, and ſtrew the Canker over after the oils have been applied; this ſometimes does a great deal of miſchief; thoſe do better who only uſe red Precipitate: but the main thing ſome Farriers are wanting in, is, the manner of uſing them; the plain cauſtick oils are the beſt alone, providing they are rightly applied; for they ſhould be more frequently dreſſed than what is common, not to let them lie on three or four days, as they often do; for the great humidity and moiſture of the Canker weakens the force of the oils, ſo that they only form a ſoft ſpungy eſchar, and when that comes to be ſcraped off, you will meet with nothing but a freſh ſpungy place, which makes the work to begin a-new again; but thoſe who have followed my advice, and have dreſſed them every day with oils, have ſoon got ground upon the Canker, even ſometimes when it has been got to the Coffin-bone; for the Muſcles in the bottom of a Horſe's Foot are utterly waſted in the cure of this diſtemper, yet they will grow up again, and be no detriment at all to the Horſe, a new Sole will cover them firmer and better than what they had at firſt. When the Canker does not riſe upon the dreſſings, once in two days will be ſufficient, and ſometimes a little Precipitate and burnt Allum, in fine powder, will be very neceſſary to ſtrew over the new growth of fleſh, until the Sole begins to grow. There is one other great error committed in curing the Canker, and

that is, not having ſufficient regard to the Hoof: the Hoof ſhould not only be cut off wherever it preſſes upon the tender parts, but ſhould be kept very ſoft with Linſeed Oil, and as often as it is dreſſed, bath the Hoof all round the Coronet with Chamber-lye. When the Horſe is cured and come to his appetite, he ought to have two or three purges, and two or three more ought to be repeated after a month's interval. As they are commonly draught Horſes that are ſubject to theſe maladies, a little working will do them good, as ſoon as the Foot is grown tolerably firm and ſtrong.

AN

EXPLANATION

OF THE

PLATES.

Tab. I. Repreſents the Bones of the Head.

FIG. 1. Shews one ſide of the whole Skull of a Horſe, including both the upper and under Jaw.

AA. The orbicular part of the *Cranium* or Skull, which includes the Brain and *Cerebellum*.

B. A proceſs of the occipital bone of the Skull, peculiar to Horſes, and ſome other quadrupeds; in a Horſe called the Noll-bone.

C. Part of the temporal bone, that includes the *Meatus Auditorius*, and bones of the Ear.

DD. Part of the Frontal or Forehead-bone, with the *Os Spongioſum*.

E. The ſharp bone that forms the tip of the Noſe.

FFF. Holes through which ſeveral blood-veſſels and nerves paſs the Skull to the Face.

G. The lower part of the Upper-jaw-bone, where there is a proceſs that forms the arched declivity from the Noſe to the upper Lip.

HHH. That part of the upper Jaw-bone where the ſix upper Teeth, called the Grinders, are inſerted.

I. The lower part of the upper Jaw-bone, where the Inciſors or Nippers are inſerted.

KK. The upper and lower Tuſhes.

L. The ſide of the lower Jaw-bone as united to the upper.

M. The orbit or large hole where the Eye is placed.

N. A proceſs of the temporal Bone, that forms part of the Orbit of the Eye.

O. The round head of the lower Jaw, where it is articulated with the upper.

FIG. 2. Repreſents the lower Jaw-bone, ſeparated from the upper Jaw.

AA. The two ſuperior proceſſes of the lower Jaw that join it to the upper.

BB. The two inferior proceſſes.

C. A hole through which a Nerve of the fourth pair paſſes to the Teeth, *&c.*

D. A hole through which another branch of the fourth pair paſſes to the Lips and Muſcles of the lower Jaw, *&c.*

E. The under Fore-teeth or Nippers.

FF. The Tuſhes.

G. A ſmall channel for the paſſage of a Vein, Artery and Nerve, by which the lower or under Teeth are ſupplied and nouriſhed.

H. Another channel along the upper or back part of the ſame bone.

1, 2, 3, 4, 5, 6. On the left ſide ſhews the upper part of the Grinders.

7, 8, 9, 10, 11, 12. Shews the Grinders on the right ſide, with their Roots or Thongs, when part of the Shell or Socket is removed to ſhew their Roots.

TABLE II.

FIG. 1. Shews the upper part of the Skull.

A. The occipital bone or Sinciput.

BBB. The ſeam by which the bones of the Face are joined together, which is plainly viſible in Colts, and many other young animals.

CC. Two other Sutures, which are alſo plain in Colts.

DD. Two *Foramina* or holes through which ſome ſmall Blood-veſſels and Nerves have a paſſage to the upper Jaw and upper Lip.

EE. The griſtles of the Noſe, which in young Horſes are divided by the ſeam marked BBB, but afterwards turn bony and are united.

FF. The orbits or holes of the Eyes.

GG. The lower part of the upper Jaw, where the upper Fore-teeth or Nippers are placed.

FIG. 2. Repreſents the under ſide of the Skull.

AA. The under ſide of the Occipital or Noll-bone, with the large foramen or hole through which the ſpinal marrow paſſes.

BB. Several holes through which ſome branches of the external jugulars paſs into the Brain.

CC. Two *Foramina* or holes through which two branches of the ſeventh pair of nerves of the *Cerebellum* paſs to the upper Jaw, and are

diſperſed on the muſcles of the Tongue, the Cheeks, and *Os Hyoides*.

DD. EE. The *Foramina* through which ſeveral nerves paſs, and are diſperſed on the Palate, roof of the Mouth, and Tongue.

FF. Holes through which two ſmall branches of the external jugular vein and artery paſs to and from the *Cerebellum*.

GG. Two *Foramina* or holes, *viz.* one on each ſide, through which branches of the external jugular veins and arteries are diſperſed upon the Cheeks and Temples, with ſome ſmall twigs to the lower Jaw, and the roots of the Teeth. See TAB. I. FIG. 2. and letter G.

HH. Holes through which ſmall twigs of Nerves are detached to the Eye.

II. Holes through which other branches of nerves paſs, that are diſperſed on the organs of hearing.

K. The griſly part of the baſis of the Skull, where ſeveral pituitary glands are placed that diſcharge the moiſture from the Noſe.

LL. Two *Foramina* or holes through which a vein and artery paſs to the Palate, and other parts of the upper Jaw.

MM. The *Os Palati*, or bone of the Palate.

NN. The large hole where ſome of the muſcles of the Eye are placed, that with the fat fill up that cavity.

TAB. III. Repreſents the figure of the firſt *Vertebra* of the *Thorax* in three different views, with a view of the bones of the Trunk; alſo the Breaſt-bone or *Sternon*, with the *Scapula* or Shoulder-blade.

FIG. 1. Shews the under ſide of the firſt *Vertebra* of the *Thorax* or Breaſt.

AA. The two proceſſes that join the laſt and lowermoſt *Vertebra* of the Neck.

B. The large proceſs that is received into the middle cavity of the ſaid *Vertebra*.

CC. The two lateral proceſſes that are joined to the ſaid *Vertebra*.

FIG. 2. Repreſents the ſame *Vertebra*, with its ſpine turned upwards.

A. Its ſpine.

BB. The upper ſide of the two anterior proceſſes that join the lower *Vertebra* of the Neck.

CC. The upper ſide of the two poſterior proceſſes that are articulated with the lowermoſt proceſs of the ſecond *Vertebra* of the Neck.

DD. Two proceſſes that enter into two cavities of the ſecond *Vertebra* of the *Thorax*.

E. The cavity through which the ſpinal marrow paſſes.

FIG. 3. Repreſents the *Vertebræ* of the *Thorax* or Breaſt, with thoſe of the Back and Loins in their proper ſituation.

A.

A. A Proceſs of the firſt *Vertebra* of the *Thorax*, which enters the upper cavity of the lowermoſt *Vertebra* of the Neck.

B. The lowermoſt proceſs of the firſt *Vertebra* of the *Thorax*, which enters the lower cavity of the under or lowermoſt *Vertebra* of the Neck.

CCCC. The cavities that receive the round heads of the Ribs of the *Thorax*, which join with the *Sternon* or Breaſt-bone.

DE. Shews the upper part of the Ribs that riſe from the Spines of the Back and Loins in their proper articulations, including the ſhort Ribs.

1, 2, 3, 4, 5, 6 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18. Repreſents the 18 Spines of the *Vertebra* of the *Thorax*, Back and Loins.

Horſes are often ſubject to fiſtulous Ulcers among theſe Spines, ſo that the ſtructure of theſe parts ought to be well known by thoſe who practiſe farriery.

FIG. 4. Repreſents the firſt or uppermoſt *Vertebra* of the *Thorax* ſideways, as it appears when joined with the other *Vertebræ* in FIG. 4.

A. The Spine which in this bone is ſhorter, more crooked, and more ſpungy than the other *Vertebræ*.

BB. The upper part of the two anterior proceſſes that are articulated with the lowermoſt *Vertebra* of the Neck.

CC. The lower part of the two exterior proceſſes that are articulated with the anterior proceſs of the ſecond joint or *Vertebra* of the Neck.

D. The Seam on one ſide to which the foremoſt Rib is joined, which is the ſame on the other ſide.

E. The round head or proceſs that is articulated, and enters into the cavity of the *Thorax*, and of the lowermoſt *Vertebra* of the Neck.

F. The cavity which receives a proceſs of the ſecond *Vertebra* of the Neck.

FIG. 5. Shews the *Sternon* or Breaſt-bone.

A. The round head of the Breaſt-bone, which ſerves for the origin and inſertion of ſeveral Muſcles.

B. Its lower extremity, called *Cartilago Enſiformis*, or ſword-like cartilage.

C. The cavity into which the Collar-bone on the one ſide is inſerted.

D. The Spine of the *Sternon*.

EEEEEE. The Hollows or Sockets which receive the cartilaginous ends of the anterior Ribs.

FIG. 6. Repreſents the upper ſide of the *Scapula* or Shoulder-blade bone.

A. A broad flat cavity that receives the round Head of the Shoulder-bone.

BB. Proceſſes on the baſis of the *Scapula*, to which the broad ligamentous ſubſtance that ſecures the Joint are attached, with the Tendons of ſeveral ſtrong Muſcles that move the Shoulder and the fore Limb.

C. The Spine or Ridge of the Shoulder-blade bone.

DD. The upper and lower *Coſta*, whence ſeveral very ſtrong Muſcles of the Shoulder and Fore-leg have their origins and inſertions.

EEE. Three proceſſes at the extremities of the *Lamina* or plates for the origins and inſertions of the Muſcles.

Tab. IV. Repreſents the bones of the Fore-leg.

Fig. 1. Shews the bones of the Fore-leg as they are articulated and joined together.

A. The Back or Arch of the *Os Humeri* or Shoulder-bone.

B. The round Head of the lower end of the Shoulder-bone, that is received into the upper cavity of the Leg-bone.

C. The Contortion or Spine of the Shoulder-bone, wherein ſeveral Muſcles have their origins and inſertions.

D. A large proceſs under the upper head, on the fore part of the ſame bone, whereon ſeveral Muſcles have their origins and inſertions.

E. The round head that is covered with a ſmooth cartilage, and is articulated with the *Scapula* or Shoulder-blade.

F. The Leg-bone.

G. The large proceſs that forms the Elbow of a Horſe.

H. The lower end that joins the ſmall bones of the Knee.

KKK, *&c.* The ſmall bones of the Knee.

LM. The two long bones of the Shank that reſemble the *Radius* and *Ulna* of a Man's Arm.

N. The great Paſtern.

O. The little Paſtern.

P. The Coffin-bone.

FIG. 2. Repreſents the ſmall bones of the Knee, with part of the Shank.

A. The Shank-bone cut through the middle.

B. The bore or hollow of the bone in which the Marrow is contained.

1, 2, 3, 4, 5, 6, 7. The ſeven bones of the Knee.

FIG. 3. Shews the back part of the Shoulder-bone, with its chief proceſſes.

A. The large proceſs that forms the Elbow.

B. The Spine.

CC. The two lower proceſſes of the Shoulder-bone, that are articulated with the *Tibia* or Leg bone.

FIG. 4. Shews the Shank-bone.

A. The upper part of that bone which in young Horſes is porous and ſpongy, with ſeveral *Foramina*, or little holes for the paſſage of Blood-veſſels and Nerves.

B. The cartilaginous Cap or *Epiphyſis*, by which its upper end is joined to the ſmall bones of the Knee.

C. The lower end of the ſame bone, which is porous and ſpongy, as the upper, and alſo perforated

forated in ſeveral places for the paſſage of Nerves and Blood-veſſels.

D. The lower *Apiphyſis* or Head, which both receives and is received in its juncture with the upper end of the great Paſtern.

FIG. 5. Shews the great Paſtern.

A. The middle of that bone, which is ſmall, but more compact and ſolid than the two ends.

BB. Two Appendages that form the Fetlock.

C. The lower end, by which it is articulated and joined to the leſſer Paſtern.

FIG. 6. Shews the form of the leſſer Paſtern.

A. Its upper round Head, which is joined with the lower end of the great Paſtern.

B. Its lower end, which is articulated and indented into the Coffin-bone.

FIG. 7. Repreſents the Coffin-bone.

A. The lower part or Toe.

B. The upper part, which receives the end of the little Paſtern.

TAB. V. Shews the *Vertebræ* of the Loins, *Os Sacrum* and Hip-bones.

FIG. 1. Repreſents the *Vertebræ* of the Loins and *Os Sacrum* united together.

A. The *Vertebræ* of the Loins.

1, 2, 3, 4, 5, 6. The ſpinal proceſſes.

3, 3, 3, 3, 3, 3. The ſix lateral proceſſes.

B. The under ſide of the *Os Sacrum*.

1, 2, 3, 4, 5. The five Spines of that bone.

4, 4, 4, 4, 4. Five cavities, with Holes for the paſſage of ſeveral Nerves, Veins and Arteries.

FIG. 2. Shews the under ſide of the *Os Sacrum*, with the bones or junctures of the Tail.

AA. Two ſmall proceſſes by which it is joined to the lowermoſt *Vertebra* of the Loins.

BB. Two other proceſſes that are alſo united with the lowermoſt *Vertebra* of the Loins.

CC. Two cavities that receive the two upper proceſſes of the Hip-bones.

DDDD. The ſeveral *Foramina* or holes of the *Os Sacrum*, being eight in number, through which ſeveral branches of Veins, Arteries, and Nerves, have their paſſage to and from the ſpinal Marrow.

E. The large Foramen or hole in which the ſpinal Marrow is contained.

FIG. 3. Shews the Hip-bones, *viz.* the *Ileum*, *Iſchium*, and the *Os Pubis*; often called the *Oſſa Innominata*.

AA. The two anterior points or proceſſes by which the two ſides of the *Ileum* are united to each other, and with the Coxendix.

BB. The flat ſides of the *Ileum* which gives form to the Hips, in the hollow parts of which ſeveral Muſcles are placed, which are mentioned in their deſcription.

CC. The two points of the *Ileum* from whence the oblique aſcending Muſcles of the

lower Belly have their origins, and into which the deſcending Muſcles are inſerted.

DD. The large Sockets or Cups that receive the round Heads of the *Oſſa Femoris* or Thigh-bones.

EE. Two large holes of the *Iſchium*, of an oval figure, covered with muſcular fleſh, through which ſeveral Veins, Arteries and Nerves, have their paſſage.

F. The ſeam by which theſe bones are joined, which in young animals is viſible to the Eye, and may eaſily be ſeparated. This bone is called the *Pubis*.

GG. The points of the *Os Pubis*. From this bone the pyramidal Muſcles derive their origins, and others are connected with it.

Tab. VI. Repreſents the bones of the Hind-leg and Foot, both ſingle and united.

Fig. 1. Shew the Thig-bone, Leg-bone, Inſtep, Paſterns and Foot, in their proper articulations.

A. The large round Head of the Thigh-bone, which enters the *Acetabulum* or Cup of the Hip-bones.

B. Another proceſs of the ſame bone, called its leſſer *Trochanter*.

C. The great *Trochanter*. In theſe, and in the ſtrong ligaments that ſurrounds the Hip-joint, ſeveral Muſcles have their origins and inſertions.

DD.

DD. Shews the body of the Thigh-bone, with its ſpines, contortions, and protuberances; from whence ſeveral Muſcles that move the Leg are derived, and in which others are inſerted.

E. The Stiffle or Knee-pan.

FF. The two lower round proceſſes of the Thigh-bone, which are joined with the Leg-bone.

G. The upper head of the Leg-bone, covered with its cartilaginous *Apiphyſis* or Cup, for its more eaſy motion.

H. The Shank or body of the Leg-bone, with its ſpines.

I. The lower end of that bone, which is united with the ſmall bones of the Hock.

K. The ſmall bones in the bending of the Hock.

L. The large proceſs that forms the Heel of the Hock.

M. The Inſtep-bone.

N. The Splinter-bone, that reſembles the *Fibula* of the human Leg.

O. The lower part of the Inſtep-bone, that joins with the ſmall bones of the Paſtern-joint.

P. The ſmall bones and cartilages that fill up the cavities thereof.

Q. The great Paſtern, which anſwers to the *Tarſus* of the human Foot.

R. The leſſer Paſtern, which anſwers to the *Metatarſus*.

S. The Coffin-bone.

T. The proceſs of the hindermoſt ſmall bone, which reſembles the Heel of the Hock, and

forms the Fetlock; and is properly the Heel-bone of a Horſe.

FIG. 2. Shews the Leg-bone.

A. The two ſharp proceſſes that are received into the lower end of the Thigh-bone.

B. C. The two ſplinters that are ſituated one on each ſide of the ſaid bone, near its protuberance.

DD. Two ſharp proceſſes that are received into the head of the Inſtep-bone.

FIG. 3. Shews the *Patella* or Knee-pan, called the Stiffle of a Horſe.

A. The convex or round part of the Stiffle.

B. The ſtrong ligament that ties it to the *Tibia* or Leg-bone.

FIG. 4. Shews the Inſtep-bone, which correſponds with the Shank-bone of the Fore-leg.

A. A round cartilaginous proceſs that joins the lower end of the Leg-bone, and the ſmall bones of the Hock.

B. The body of the Inſtep-bone.

CC. The two ſplinter-bones or bodkins that are more diſtinct, and proportionably larger on this bone than on the preceding.

DD. Two round proceſſes that are united with the great Paſtern, and ſmall bones of the Fetlock-joint.

E. A thin rotatory proceſs that turns in a narrow channel of the great Paſtern.

FIG. 5. Shews the Heel-bones of the Hock.

A. The cartilaginous *Apiphyſis*, or Top, into which the great maſter Sinew is inſerted.

B. The ſmall Neck or proceſs of that bone.

CC. Two ſmall uneven bones, which are firmly united to it, within whoſe proceſſes Veſigons or Windgalls are often bred.

FIG. 6. Repreſents the *Os Calcis* or Heel-bone, which gives form to the Fetlock, and reſembles the laſt deſcribed bone, but much ſmaller.

A. The Head, into which the back Sinew behind is inſerted: Windgalls are often bred between this and the Inſtep-bone, in the cavities on both ſides the Sinew.

BB. Two cavities that receive two proceſſes of the great Paſtern.

C. A round proceſs that enters into a long cavity of the ſaid Paſtern.

FIG. 7. Shews the Coffin-bone, which correſponds with the laſt joints of the Toes in men.

A. The Coffin that is covered with the Hoof.

B. The hollow that receives the round Heads of the lower Paſtern.

TAB. VII. Shewing the whole Skeleton of a Horſe.

A. The Head, including all its parts as articulated with the Neck.

BB. The Blade-bone or *Scapula*.

C. The Shoulder-bone.

DD. The Leg-bones.

EE. The Joints of the Knees, with the ſmall ranges of bones.

FF. The two proceſſes in the bending of the Knees or *Rotulæ*, which both facilitate its motion and prevent diſlocation.

GG. The Shank-bones.

HH. The Paſtern-joints.

II. The leſſer Paſtern.

KK. The Coffin-bones of the Fore-foot.

LL. The Hip-bones, or *Oſſa Innominata*.

MM. The Thigh-bones.

NN. The Hind-leg-bones.

OO. The bones that form the Heel of the Hock.

PP. The Oſſets or ſmall bones of the Hock.

QQ. The Inſtep-bones.

RR. The great Paſtern.

SS. The little Paſtern.

TT. The Coffins.

V. The *Sternon* or Breaſt-bone.

X. The *Cartilago Enſiformis*, or ſword-like cartilage, being the point of the Breaſt-bone.

YYYY. The Ribs.

Z. Their cartilaginous endings on the Breaſt and Belly.

I. II. III. IV. V. VI. VII. The ſeven *Vertebræ* of the Neck.

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18. The eighteen *Vertebræ* of the *Thorax* and Back.

1, 2, 3, 4, 5, 6. The ſix *Vertebræ* of the Loins.

1, 2, 3, 4, 5. The five Spines of the *Os Sacrum*.

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18. The eighteen Joints of the Coxendix and Tail.

Tab. VIII. Shews the external Muſcles of a Horſe, as they appear on one ſide, when the Skin and fleſhy Panicle is removed.

A. The orbicular Muſcle of the Eye.

a. The temporal Muſcles, and Muſcles of the Cheeks.

b. The orbicular Muſcle of the Mouth.

c. The Muſcles of the Noſe.

BBB. The Muſcles of the Neck, with thoſe that deſcend to the Back and Shoulders, to aſſiſt in the motions of thoſe parts.

C. A ſtrong nervous ligament under the Mane, which keeps the Neck firm and ſteady in its motions.

D. The pectoral Muſcles.

EEEE. The proper Muſcles of the *Scapula* or Shoulder-blade, with thoſe that move the Shoulder.

F. The Muſcles that move the Fore-leg.

GG. The Muſcles that move the Paſtern and Foot.

HH. The Muſcles of the Back and Loins.

IIIII. The principal Muſcles of the Hips that move the Thigh.

K. The Muſcles that move the Hind-leg.

LL. The Muſcles that move the Hind-Paſtern and Foot.

MM. The Inſtep-bones of both the Hind-legs, as expoſed in the diſſection of the Muſcles.

NNN. The Ribs as they appear when the Skin and fleſhy Panicle and Muſcles are removed.

1, 2, 3, 4, 5. The *Seratus Anticus*, from their reſembling the teeth of a ſaw.

6, 6, 6, 6, 6, 6. The *Serratus Poſticus*. Both which aſſiſt in widening the *Thorax* or Cheſt, in reſpiration.

Tab. IX. Shews a Horſe with his Face towards us, that we may view the Muſcles as they appear on his Fore-parts.

AA. A pair of the Muſcles belonging to the Ear.

BB. Another pair of the Muſcles of the Ear.

CC. Another pair belonging to the Ear.

DD. The temporal Muſcles.

EE. A pair of Muſcles of the Eye-lids.

FF. Another pair belonging to the Eye-lids.

GG. A pair of Muſcles that belong to the Lips and Noſe.

H. Another pair belonging in common to the Lips and Noſe.

II. Muſcles that move the Fore-leg and Elbow.

KK. The origins of ſome of the Muſcles of the Head and Neck.

L. The Muſcles of the *Larynx*.

MMMM. Two principal Muſcles belonging to the Head and Neck.

NN. Another principal Muſcle belonging to the Neck.

OO. Muſcles belonging to the Fore-leg and Elbow.

P. The Muſcles called the *Deltords* of the Shoulder.

Q. Part of the intercoſtal Muſcles.

R. *Serratus Poſticus*, with part of the oblique Muſcles of the lower Belly.

SSS. The principal Muſcles of the Hips, being thoſe that chiefly move the Hind-legs.

TT. The Muſcles of the Knee and Hock, that move the fore and hind Paſterns.

Tab. X. Shews two different views of the Muſcles of the Fore-leg of a Horſe.

Fig. 1. Shews the anterior or fore-part of the Fore-leg.

AA. The principal Muſcle of the Knee, which aſſiſts in moving the Leg.

B. One of the chief Muſcles of the Paſterns, which divides below the Knee in two Tendons, which are inſerted into the Paſtern.

C.

C. A ſtrong annular Ligament, by which the Tendon of the laſt deſcribed Muſcle is braced down to the Knee, being of ſo great a length down to the Paſtern, that without ſuch an attachment would intirely loſe its ſpring and ability to motion.

D. The uppermoſt Muſcle of the Knee, which runs obliquely acroſs, and is inſerted in the hind-part of it.

E. The axillary Vein, which appears when the Skin is carefully taken off, to ſhew the Muſcles in their proper ſituation.

FF. The Shank-bone, as it appears when the anterior Muſcles of the Leg are diſſected.

FIG. 2. Repreſents the back or hind-part of the Fore-leg.

AA. Two of the principal Muſcles that bend the Knee.

BB. Another principal Muſcle of the Knee.

CC. One of the principal Muſcles that bends the Paſtern.

D. Another Muſcle of the Paſtern.

EE. The great Tendon or back Sinew which is inſerted into the Heel, and is plainly viſible when the Muſcles are diſſected.

F. The ſtrong annular ligament that braces the back Sinew under the Paſtern, and is often the ſeat of humours and ulcers, in foul or fleſhy-legged Horſes.

G. The Tendon of another Muſcle of the Paſtern, that runs on one ſide of the back Sinew, and partly under it.

H. So much of the Shank-bone as appears in this view.

I. The Splinter-bone of the Fore-leg, which correſponds with the *Radius* of the human Arm.

Tab. XI. Repreſents two different views of the Hind-legs of a Horſe, to ſhew the principal Muſcles.

Fig. 1. Shews the anterior or fore-part of the Hind-Leg.

AAAA. One of the principal Muſcles of the Hind-paſtern, which deſcends from the Hip to the Heel.

B. One of the chief Muſcles that bends the Hock.

C. One of the principal Muſcles that extends the Paſtern.

D. A ſmall fleſhy Muſcle that helps to turn the Hind-leg.

EE. Two ſtrong cartilaginous Ligaments that brace down the long Muſcles of the Paſterns that deſcend from the inſide of the Thigh.

FF. The bones on the inſide of the Hock, that appear when the Skin is taken off to ſhew the Muſcles.

GG. Branches of the internal crural Veins.

H. The Inſtep-bone.

I. A rough bony proceſs, in which ſeveral Muſcles have their origins and inſertions.

KL. The Tendons of ſome of the Muſcles that are inſerted into the Heel.

Fig. 2.

FIG. 2. Shews the hind or back part of the Hind-leg, with its Muſcles.

A. A Muſcle of the Leg called the *Sartorius* Muſcle in men, and helps to turn the Leg inwards.

B. One of the principal Muſcles of the Hock.

C. Another principal Muſcle of the Hock.

D. One of the Muſcles of the Thigh, cut off above its inſertion into the Leg.

E. One of the Muſcles of the Leg, inſerted into the upper inſide proceſs of the Hock.

FF. The combination of ſeveral Muſcles that are united in the great Tendon or maſter Sinew, that is inſerted into the Heel of the Hock, called in the human body the *Tendo Achillis*.

G. One of the Paſtern Muſcles that paſſes over the outſide of the Hock.

H. The ending or termination of the great Tendon that forms the Heel of the Hock.

II. The Muſcles of the Paſterns that run over both ſides of the Paſtern-joint.

KK. The tendinous Muſcle that is inſerted into the Fetlock, and is ſometimes called the back Sinew of the Hind-leg.

LL. The Tendons of the Muſcles that deſcend on both ſides of the ſmall of the Inſtep or Hind-leg, and are inſerted into the Coffin-bone to move the Foot, with ſome twigs of Veins which appear when the Skin is taken off.

M. The tendinous part of a Muſcle that paſſes down to the bottom of the Foot, correſponding with the *Plantaris* in the human Foot,

and

and forms in a Horſe the fleſhy part of the Frog, *&c.*

N. Other nervous Muſcles that are inſerted into the lower proceſſes of the leſſer Paſtern, and into the Coffin-bone.

Tab. XII. Repreſents the Guts, as they appear in their natural ſituation, when the lower Belly is laid open.

AAAAAAAA. The Gut colon, its ſeveral circumvolutions and windings, with its folds and purſes: under which lie the ſmall Guts.

B. The *Cæcum* or blind Gut.

C. The ſtreight Gut.

D. The *Penis* or Yard.

E. The Fundament.

Tab. XIII. Repreſents the Stomach in two different views, the one whole, the other cut open, to ſhew the *Rugæ* or furrows on its inſide. Alſo the courſe of the *Chyle*, &c.

Fig. 1. Shews the Stomach intire.

AAA. The outſide of the Stomach, with the ramifications or branchings of the Blood-veſſels.

B. Part of the upper Orifice or Gullet.

C. The *Pyloris*, or lower Orifice, which enters the ſmall Guts.

Fig. 2.

FIG. 2. Shews the Stomach, with a piece of it cut off, that the inſide may be ſeen.

AAA. The outſide of the Stomach.

B. The Gullet cut off where it opens into the Stomach.

C. The lower Orifice.

FIG. 3. Shews the lacteal Veſſels proceeding from the ſmall Gut to the *Ductus Thoracius*.

AAA. Part of the ſmall Gut cut off, with the lacteal or milky veſſels riſing out of it.

BBB. The courſe of the ſame veſſels along the Meſentry to the Thoracick Duct; with the ſmall Blood-veſſels of the Meſentery.

CCC. The Thoracick Duct cut off, which receives the *Chyle* or milky liquid from the ſmall Guts by the lacteal Veſſels, *&c.*

DD. Part of the inſide of the Back-bone.

EEEE. Part of the Ribs cut off.

TAB. XIV. Sheweth the principal parts contained in the lower Belly of a Horſe, when the Guts are carefully taken out and removed.

AA. The Midriff turned up to ſhew its under ſide.

BBBB. The Liver.

C. The Gall-pipe cut off before its entrance into the *Duodenum* or ſmall Gut.

D. The aſcending great Vein, or *Vena Cava*.

E.

E. The *Aorta Deſcendens*, or the deſcending great artery.

FF. The Ureters which convey the urine from the Kidneys to the Bladder.

GG. The Kidneys.

HH. The ſpermatick Veſſels on the right ſide.

II. The ſpermatick Veſſels on the left ſide.

KK. The *Teſtes* or Stones.

LL. The *Vaſa Deferentia*.

M. The Bladder.

N. The *Inteſtinum Rectum*, or Straight Gut.

O. The *Penis* or Yard.

Tab. XV. Shews the Lungs, the Head of the Windpipe, with two different views of the Heart.

Fig. 1. Repreſents the whole ſubſtance of the Lungs.

AA. Part of the Windpipe.

B. The left Lobe of the Lungs, covered with its proper Membrane.

CC. The principal branch of the Windpipe on one ſide, with its ſeveral ramifications through the Lungs.

DDDD. The innumerable Veſſicles or Air-bladders that ariſe from the extremities of the ſmall Branches of the Windpipe, when they are blown up and filled with air.

Fig. 2. Shews the *Larynx*, with part of the Windpipe.

A. The Epiglotis.

B.

B. The *Cartilago Scutiforme*, or ſhield-like cartilage.

C. The cartilaginous rings of the Windpipe.

FIG. 3. Shews the left Ventricle of the Heart laid open.

AA. The external or fleſhy ſubſtance of the Heart.

BBB. The pulmonary Vein which opens into the left Ventricle.

C. The left Ventricle which receives the Blood from the pulmonary Vein.

FIG. 4. Shews the right Ventricle of the Heart laid open.

AA. The *Vena Cava* cut off above and below.

B. The entrance of that Vein into the right Ventricle.

CC. The inſide of that Ventricle, with the Valves and the *Fibrillæ*, or little Fibres that faſten the ends of the Valves to the ſubſtance of the Heart.

D. The *Apex* or point of the Heart.

TAB. XVI. Repreſents the principal Veins, as they are diſtributed into all parts of the Body of a Horſe.

AA. The *Vena Cava*, or hollow Vein which receives the Blood from all the other Veins, in order to its conveyance into the Heart.

BB.

BB. The axillary Veins which receive the Blood from the Fore-legs, Breaſt and Belly, *&c.*

CC. The Veins of the off Leg before, which empty themſelves immediately into the axillary Veins.

DD. The Veins of the left or near Leg before, which enter the left branch of the axillary Vein.

EE. The external jugulars, with their ſeveral ramifications that return the Blood chiefly from the external parts of the Head and Neck into the *Cava*.

FF. The internal jugular Veins that return the Blood chiefly from the Brain, *&c.*

GG. The Veins diſperſed on the Face and Cheeks, that empty themſelves chiefly into the external Jugulars.

H. The *Vena ſine Pari*, or *Azygos*, which opens into the deſcending Trunk of the *Cava* before it reaches the Heart.

II. The coronary Vein, with its ramifications upon the Heart.

KK. The Veins peculiar to the Midriff.

LL. Thoſe peculiar to the Liver.

MM. The veins peculiar to the Kidneys.

N. The junction of the Iliac Veins in the *Cava Aſcendens*, or the aſcending *Cava*.

OO. The Veins of the Teſticles.

PP. The branches of the Iliacs that are diſperſed upon the Thighs and Hind-legs.

Q. The Veins of the Tail.

RR. The crural Veins that are diſperſed on the Legs and Feet.

SS. The Veins that run along each ſide of the Belly, which receive the Blood from all the external parts thereof, and open into the Iliacs near the Groins.

Tab. XVII. Repreſents the *Vena Porta*, as it riſes from the Guts and other Inteſtines, with its diſtribution through the Liver.

A. The Trunk of the *Vena Porta*.

B. A principal branch that riſes from the Stomach, the Spleen, *Duodenum*, *Omentum*, &c. and opens into the Trunk of the *Porta* near its middle.

C. Another principal branch that riſes chiefly from the Veins of the Meſentery, the Gut Colon, and from the *Rectum* or Streight Gut.

D. A conſiderable branch from the Meſentery, the Colon and *Cæcum*, or blind Gut.

E. Two conſiderable branches from the Meſentery and Colon that unite near the Trunk of the *Vena Porta*.

FF. Several conſiderable branches of Veins that ariſe from the Meſentery, and from all the ſmall Guts and other Inteſtines, and open into the entrance of the *Vena Porta*.

GGGG. The branches of the *Vena Porta*, as they are diſtributed through all parts of the Liver.

Tab. XVIII. Shews the Arteries and their diſtribution into all parts of the Body of a Horſe.

A. The Heart, with its coronary Arteries.

B. The deſcending Trunk of the *Aorta* or great Artery, making a channel along the Back.

CC. The ſubclavian Arteries that paſs under the Collar-bone to the Fore-legs.

DDDD. The ſuperior and inferior cubital Arteries that are diſperſed along the Fore-legs and Feet, conveying the Blood for the nouriſhment of thoſe parts.

EE. The external carotids that carry the Blood upwards to the Head, ſending out branches as they paſs along to the muſcular parts of the Neck.

FF. The internal carotid Arteries, which alſo take their courſe to the Brain and other parts of the Head, into which they enter by different *Foramina* or holes.

GGGG. The moſt conſpicuous branches of the external and internal Carotids, as they communicate one with another in the Head and upper part of the Neck and Jaws, and have their different names and denominations from the ſeveral places to which they are detached.

HHHHHH. The intercoſtal Arteries which paſs out between the Ribs on each ſide, and are beſtowed on all parts of the Trunk of the Body.

II. The Arteries that are beſtowed on the Midriff or Skirt on the Stomach, and other internal parts.

KK. The Arteries that are diſperſed on the Spleen or Melt, the Liver, Meſentery, and ſmall Guts.

LL. The Arteries beſtowed on the Kidneys.

MM. The lumbal Arteries that are diſperſed on the Bladder, *Inteſtinum Rectum*, and other parts within the *Pelvis*.

NN. The ſeminal Arteries that go to the Teſticles.

OO. The Arteries diſperſed on the Teſticles.

PP. The Arteries that proceed from the Iliacs, and are beſtowed on the Tail.

QQ. The Iliac Arteries that branch off into the Thighs.

RR. The crural Arteries that are beſtowed on the Legs and Feet.

Tab. XIX. Shews one ſide of the Head and Neck of a Horſe, with the principal Veins as they appear when the Skin and Fat is removed.

AAA. The external jugular or Neck-vein, which is chiefly opened in moſt of the diſorders of Horſes.

B. One of the principal branches of that Vein, which divides under the Jaw, and receives ſome branches from the internal parts of the Head, and others from the Temples, Cheeks, and from the upper Jaw.

C. Another principal branch of the ſame Vein, which divides itſelf behind the upper Jaw, and receives branches from the Parotid Glands, and from the *Cerebellum*, through the *Foramina* or holes in the baſis of the Skull, and other more external branches from behind the Ear.

D. A branch of the ſame Vein which proceeds externally from the Eyes and Temples, and are called the Temporal, and, by our Farriers, the Temple Veins.

EE. The external branches called the Cheek Veins, which open into the Jugular-vein.

F. The union of two branches, one from the Noſe along the Upper-Jaw, and another reflected back from its paſſage through the fore-part of the Skull below the Eye.

GG. Two branches, one that proceeds from the upper Jaw, and the other from the under Jaw.

HHH. Several ſmall branches from the Muſcles of the fore-part of the Neck, that open directly into the under ſide of the jugular or Neck Vein.

I. Two branches that proceed from the Muſcles of the lower part of the Neck and Shoulders, and open into the ſame Vein.

K. Two other branches that proceed from the upper part of the Neck, and open into the upper part of that Vein.

Tab. XX. Repreſents the Nerves, and their diſtribution into all parts of the Body of a Horſe.

AA. The firſt pair are the olfactory Nerves that go to the Noſe, and the organs of ſmelling.

BB. The ſecond are the optic Nerves that contribute to ſight or ſeeing.

CC. The third pair, *viz.* the *Motores Oculorum*, or Movers of the Eyes, are the Nerves that are ſpread on the Globe of the Eye.

DD. The fourth, called the pathetick Nerves, becauſe they expreſs ſome particular paſſions.

EE. The fifth pair, that are chiefly ſpread on the Eye-lids and Muſcles of the Eyes, and aſſiſt their motions.

FF. The ſixth pair go to the *Abductor* Muſcle of the Eye, and, communicating with a reflected branch of the fifth, forms the intercoſtal.

GG. The ſeventh pair go chiefly to the Ear, and are diſperſed on the organs of hearing.

HH. The eighth pair, called the *Par Vagum*, becauſe they form the recurrent Nerves, which ſend branches to the *Viſcera*, and communicate with almoſt all the other Nerves.

II. The ninth are chiefly ſpread on the ſubſtance of the Tongue, and are the inſtruments of taſting.

KK. The tenth pair belong chiefly to the *Extenſor* Muſcles of the Head.

LL. The branches that go to the Shoulders.

MM. The branches that go to the Fore-feet and Paſterns.

NN. The recurrent Nerves.

OO. The branches that are ſpread on the Thighs, from the *Vertebra* of the Loins.

PP. The branches that are diſtributed on the Hocks, from the *Os Sacrum*.

QQ. The Nerves that are diſtributed on the hind Paſterns and Feet.

1, 2, 3, 4, 5, 6. The Nerves that proceed from the medullary ſubſtance contained in the ſix *Vertebræ* of the Neck.

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18. The Nerves that proceed from the medullary ſubſtance or Pith of the eighteen *Vertebræ* of the *Thorax* and Back, which go to the Ribs and all parts of the Trunk.

1, 2, 3, 4, 5, 6. The Nerves that proceed from the Pith or medullary ſubſtance of the ſix *Vertebræ* of the Loins.

IIIII. The Nerves that proceed from the Pith of the three uppermoſt *Vertebræ* of the Tail.

Tab. XXI. Repreſents the Eye of a Horſe in ſeveral views.

Fig. 1. Shews the Eye, with the *Tunica Adnata* or upper Tegument removed.

AAAA. The *Tunica Adnata* ſeparated from the Body of the Eye, and reverſed or turned back.

B. The *Iris*.

CC. The *Cornea*.

D. The Pupil.

FIG. 2. Shews the Eye taken out of the Head, with the Muſcles as they appear without diſſection.

A. The Pupil, or Sight of the Eye, as it is commonly called.

B. The *Cornea* or horny coat of the Eye.

CC. The *Tunica Adnata*, or common coat of the Eye.

DDD. The Muſcles of the Eye.

EEE. Their inſertions into the Eye.

F. The optic Nerve cut off.

FIG. 3. Repreſents the Eye, with the Muſcles ſeparated and diſſected.

AAAA. The four principal Muſcles of the Eye, ſeparated and ſpread open.

BB. The white of the Eye, which in a Horſe is much variegated with brown lines or ſtreaks.

CC. The *Cornea* or horny coat of the Eye.

D. The place of the Pupil.

TAB. XXII. Repreſents, in two figures of the Hind-leg, the Blood-ſpavin and Bone-ſpavin.

* See Page 283.

* FIG. 1. A. Shews the inſide of the Hock, with the *Varix* or Blood-ſpavin, as the obſtructed Veins appear in that diſtemper.

FIG. 2. B. Shews the Bone-ſpavin, on the inſide of the lower part of the Hock, and upper end of the Inſtep-bone.

TAB.

Tab. XXIII. Repreſents in two figures the Ring-bone and Curb.

Fig. 1. Shews the Fore-legs of a Horſe in a ſtraight poſition.

AAA. The Ring-bone or circular hard ſwelling round the Paſtern-joint.

Fig. 2. Shews the Hind-leg of a Horſe in a bending poſition.

A. The Heel of the Hock.

B. The Curb or hard ſwelling, as it appears when grown to its full extent.

Tab. XXIV. Repreſents in two different views of the Fore-leg, the various kinds of Splents.

Fig. 1. The hinder or back Part of the Fore-leg, to ſhew a thorough Splent.

AA. The Splent ſituated between the Shank-bone and the back Sinew, and appearing on both ſides thereof.

Fig. 2. The Fore-leg ſideways, to ſhew the more uſual and ordinary kind of Splents.

B. A Splent under the Knee, near the Joint.

A. A Splent on the middle and fore-part of the Shank-bone, disfiguring the Leg.

C. A more dangerous Splent on the back part of the Shank-bone, near the inſertion of the Back-ſinew.

Tab. XXV. Repreſents in two figures the ſeveral kinds of Windgalls on the Fore-legs.

Fig. 1. Shews the Windgals or flatulent Tumors that appear on the fore-part of the Leg.

A. B. Two Windgalls that ſometimes ariſe under each ſide of the Knee.

C. A Windgall on the Shin, between two muſcular Tendons a little above the Fetlock-joint.

Fig. 2. Shews the Windgals on the hind part of the Fore-leg, with an uncommon one above the Knee.

A. A large Windgall between the Tendons of the Muſcles above the Knee.

B. A Windgall under the Knee behind.

CC. The common and uſual Windgalls on each ſide the back Sinew.

Tab. XXVI. Shews the Wens and Tumors to which ſome Horſes are ſubject about their Hocks.

Fig. 1. A. A large Wen, as it appears on the Heel of the Hock.

Fig. 2. A. B. C. Windgalls or flatulent Tumors, that ariſe in all the hollow parts of the Hock.

TAB. XXVII. Repreſents a large Wen on the Elbow of a Horſe, mark'd A.

TAB. XXVIII. Repreſents the Poll-evil.

A. A large ſwelling behind the Poll.

B. The matter running from the Orifice on the Top of the Poll, where it uſually breaks.

TAB. XXIX. Shews the *Fiſtula*, viz. a Tumor that ſometimes ariſes on the Withers of a Horſe, and produces a fiſtulous Ulcer.

A. The Tumor as it appears on one ſide of the Withers.

B. The appearance it makes on the other, when it riſes on both ſides.

C. The place where it uſually breaks when it comes to maturity.

D. The matter running from the Orifice.

TAB. XXX. Repreſents a Quittor and falſe Quarter in two figures.

FIG. 1. Shews the Quittor.

A. the Orifice from whence the matter generally flows.

B. The matter running down the Quarter.

CC. The ſwelling round the Coronet.

D.

D. The ſinking and depreſſure of the Hoof, cauſed by the malignity of the Ulcer.

FIG. 2. Shews the falſe Quarter.

A. The ſeam on the Quarter, from the Coronet to the bottom of the Foot.

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FINIS.